Fig.1

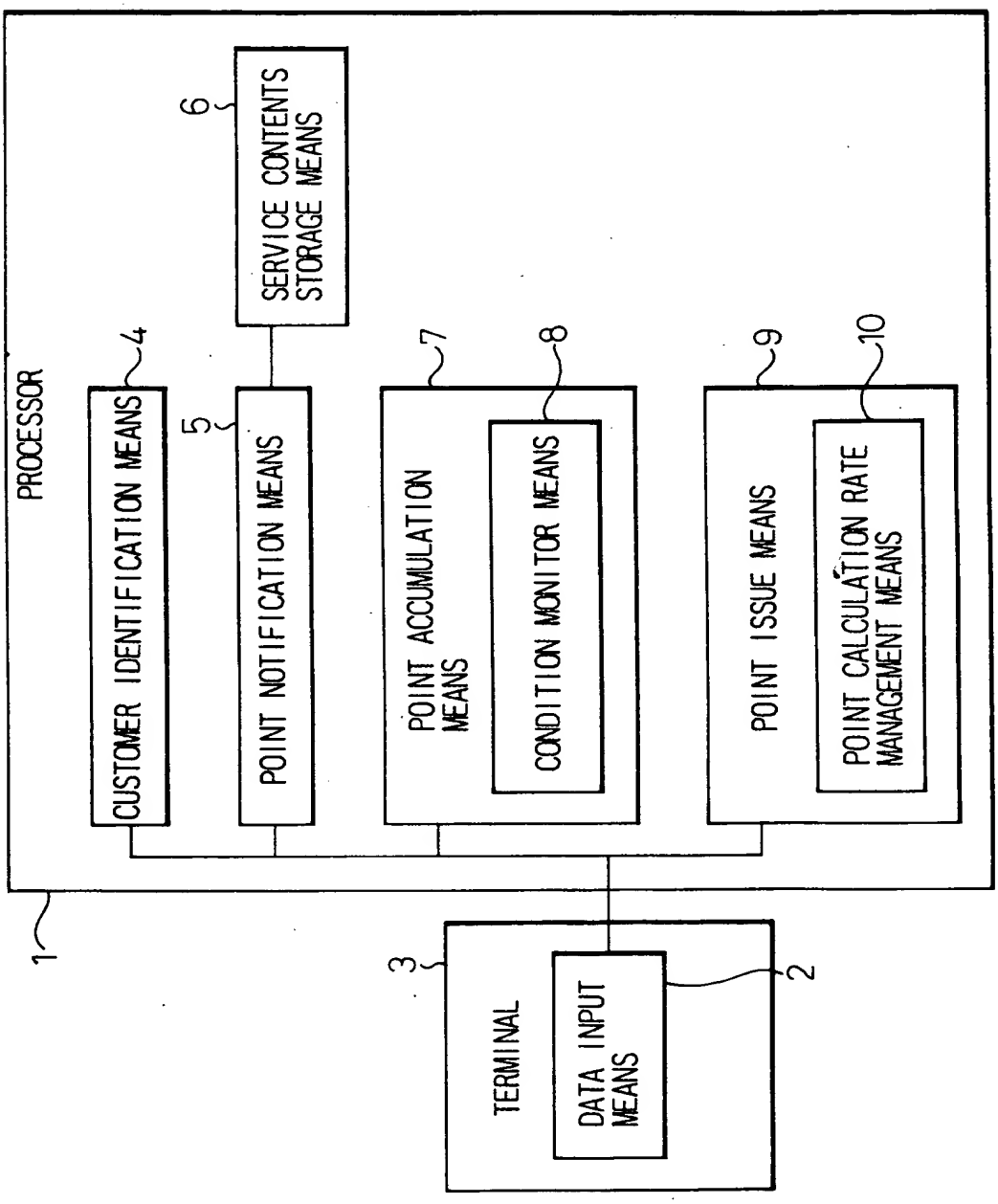

PROCESSOR
CUSTOMER IDENTIFICATION MEANS
4
POINT NOTIFICATION MEANS
5
SERVICE CONTENTS STORAGE MEANS
6
POINT ACCUMULATION MEANS
7
CONDITION MONITOR MEANS
8
POINT ISSUE MEANS
9
POINT CALCULATION RATE MANAGEMENT MEANS
10
1
TERMINAL
3
DATA INPUT MEANS
2

Fig.2

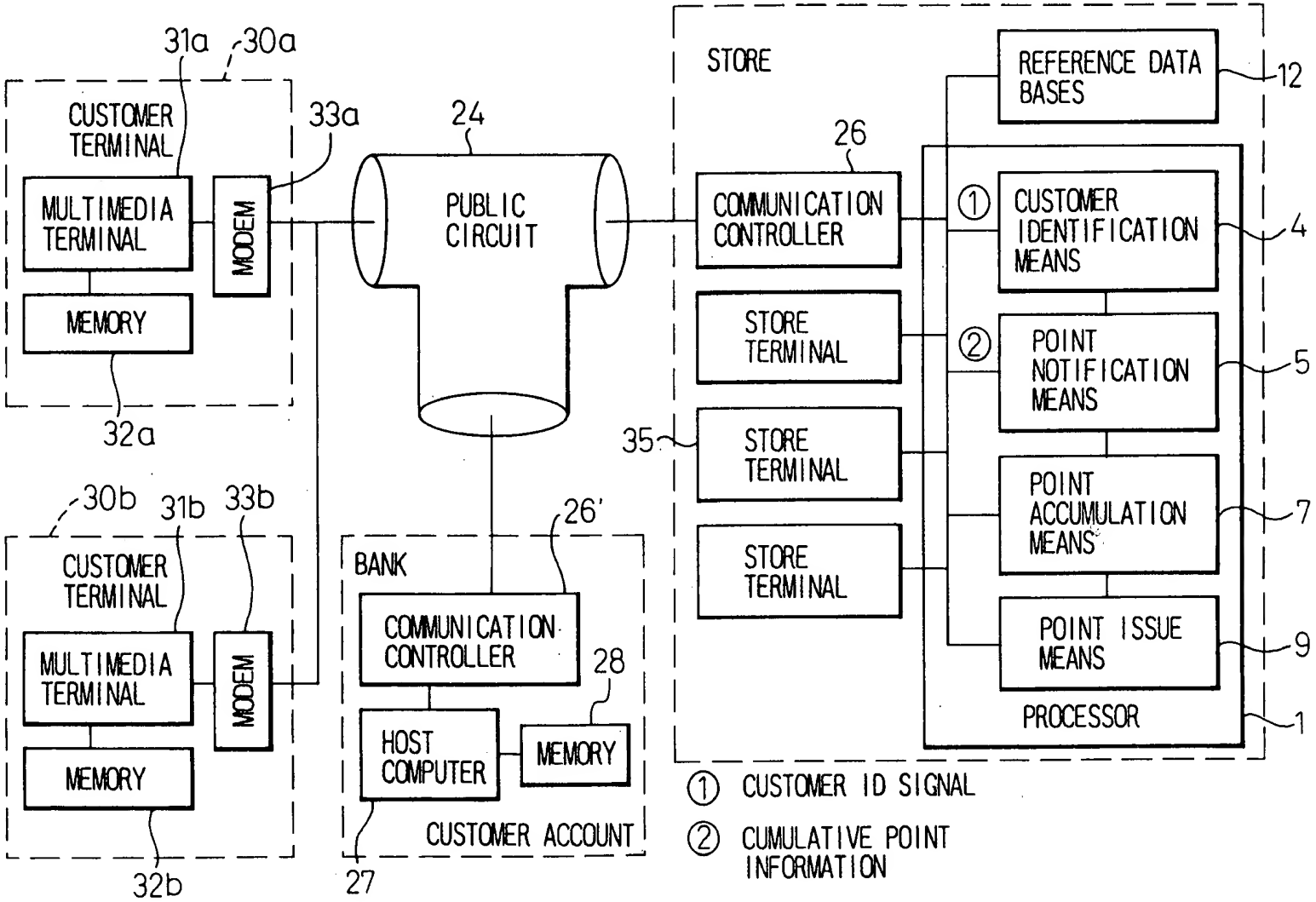

31a
30a
CUSTOMER TERMINAL
MULTIMEDIA TERMINAL
MODEM
MEMORY
32a
33a
24
PUBLIC CIRCUIT
STORE
26
COMMUNICATION CONTROLLER
STORE TERMINAL
35
STORE TERMINAL
STORE TERMINAL
REFERENCE DATA BASES
12
① CUSTOMER IDENTIFICATION MEANS
4
② POINT NOTIFICATION MEANS
5
POINT ACCUMULATION MEANS
7
POINT ISSUE MEANS
9
PROCESSOR
1
30b
31b
33b
CUSTOMER TERMINAL
MULTIMEDIA TERMINAL
MODEM
MEMORY
32b
26'
BANK
COMMUNICATION CONTROLLER
28
HOST COMPUTER
MEMORY
CUSTOMER ACCOUNT
27
① CUSTOMER ID SIGNAL
② CUMULATIVE POINT INFORMATION

Fig.3

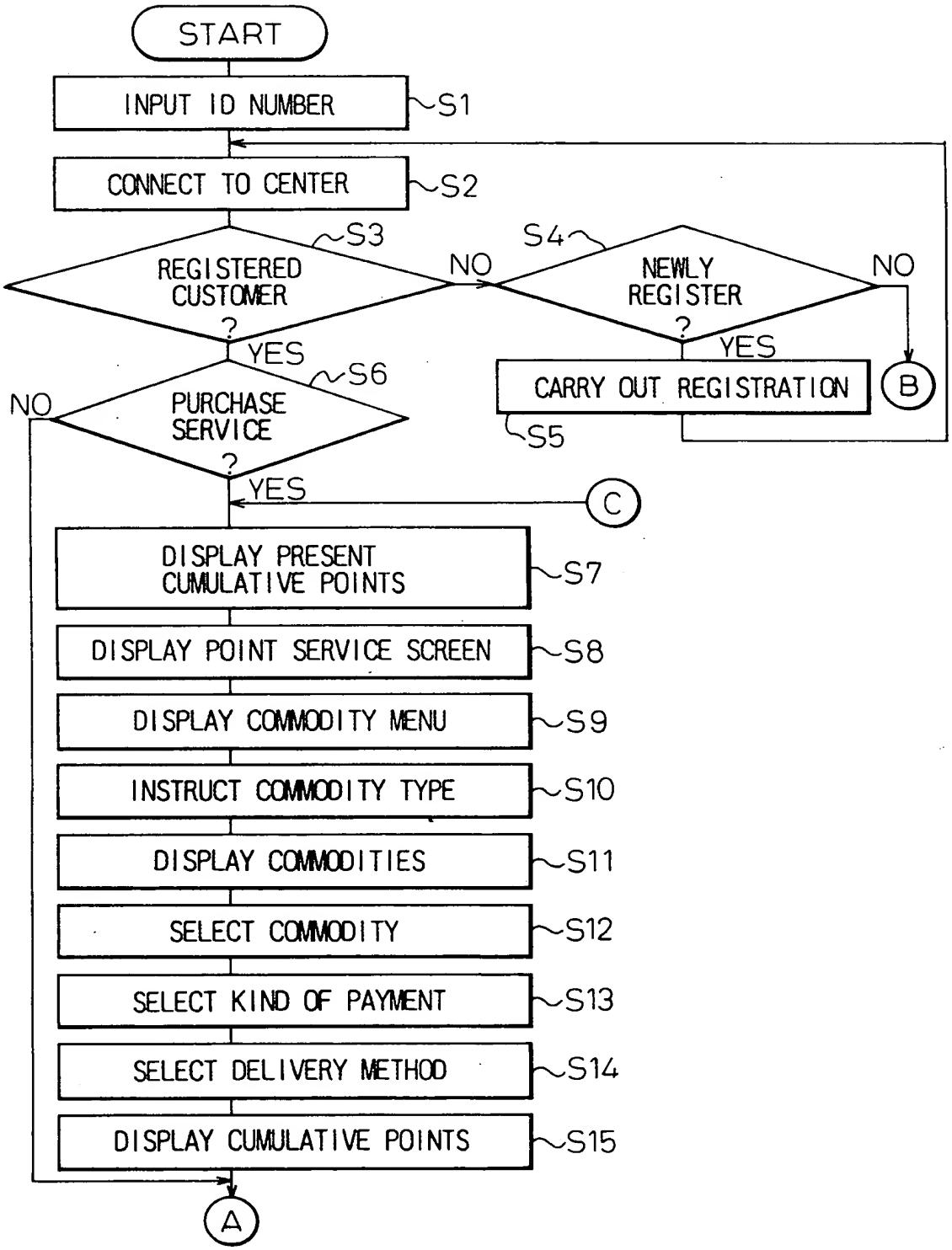

START
INPUT ID NUMBER
S1
CONNECT TO CENTER
S2
S3
REGISTERED CUSTOMER ?
NO
S4
NEWLY REGISTER ?
NO
YES
YES
CARRY OUT REGISTRATION
B
S5
S6
NO
PURCHASE SERVICE ?
YES
C
DISPLAY PRESENT CUMULATIVE POINTS
S7
DISPLAY POINT SERVICE SCREEN
S8
DISPLAY COMMODITY MENU
S9
INSTRUCT COMMODITY TYPE
S10
DISPLAY COMMODITIES
S11
SELECT COMMODITY
S12
SELECT KIND OF PAYMENT
S13
SELECT DELIVERY METHOD
S14
DISPLAY CUMULATIVE POINTS
S15
A

Fig.4

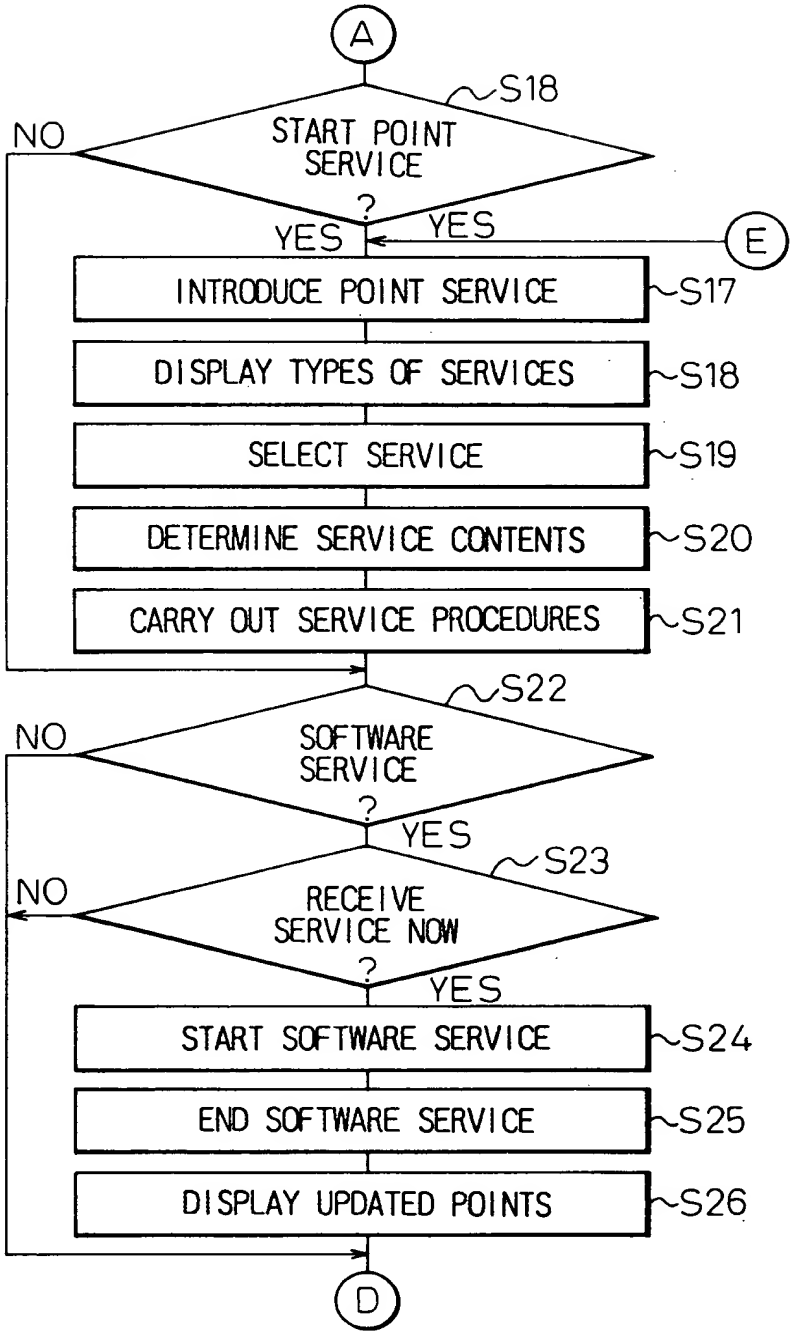

A
S18
START POINT SERVICE ?
NO
YES
YES
E
INTRODUCE POINT SERVICE
S17
DISPLAY TYPES OF SERVICES
S18
SELECT SERVICE
S19
DETERMINE SERVICE CONTENTS
S20
CARRY OUT SERVICE PROCEDURES
S21
S22
SOFTWARE SERVICE ?
NO
YES
S23
RECEIVE SERVICE NOW ?
NO
YES
START SOFTWARE SERVICE
S24
END SOFTWARE SERVICE
S25
DISPLAY UPDATED POINTS
S26
D

Fig.5

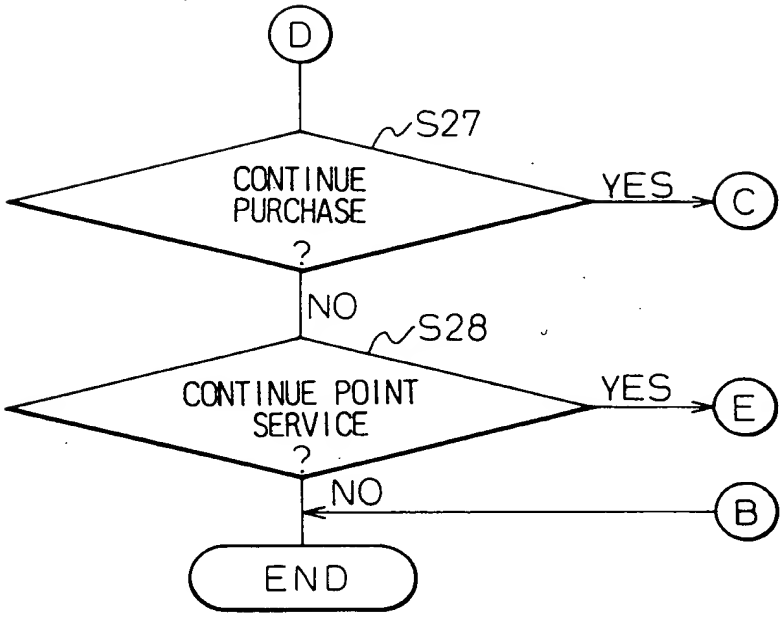

D
S27
CONTINUE PURCHASE ?
YES
C
NO
S28
CONTINUE POINT SERVICE ?
YES
E
NO
B
END

Fig.6

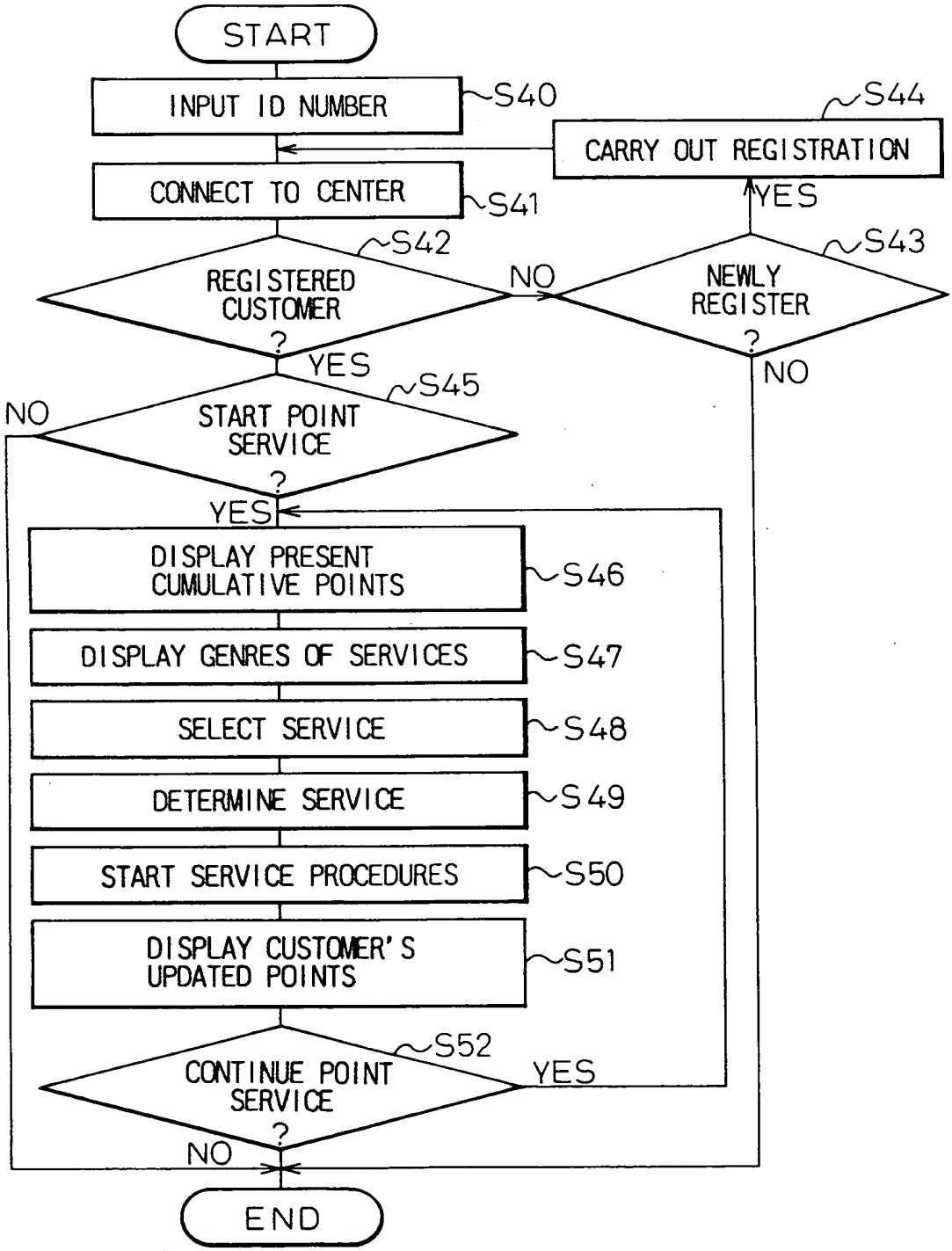

START
INPUT ID NUMBER
S40
CONNECT TO CENTER
S41
REGISTERED CUSTOMER ?
S42
NO
CARRY OUT REGISTRATION
S44
NEWLY REGISTER ?
S43
YES
NO
YES
START POINT SERVICE ?
S45
NO
YES
DISPLAY PRESENT CUMULATIVE POINTS
S46
DISPLAY GENRES OF SERVICES
S47
SELECT SERVICE
S48
DETERMINE SERVICE
S49
START SERVICE PROCEDURES
S50
DISPLAY CUSTOMER'S UPDATED POINTS
S51
CONTINUE POINT SERVICE ?
S52
YES
NO
END

Fig.7(A)

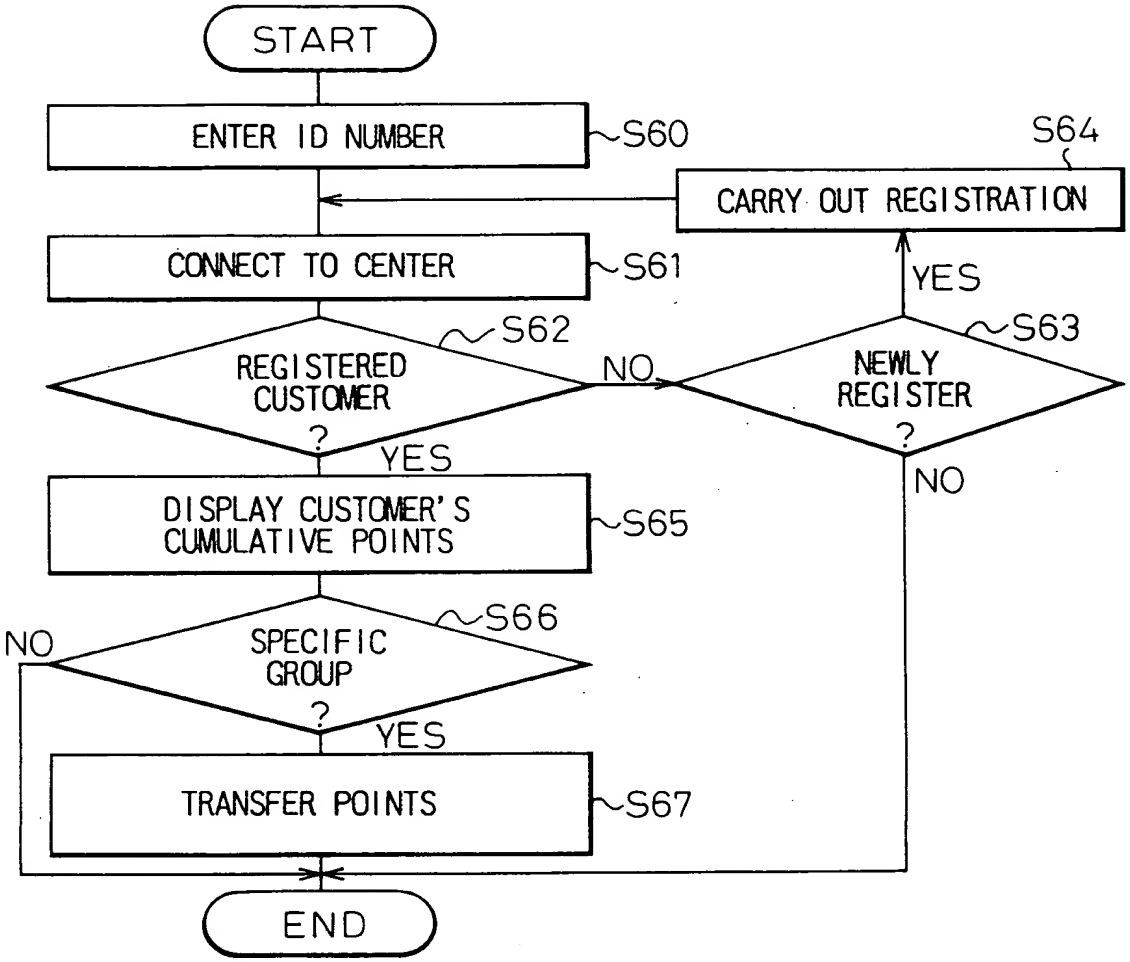

START
ENTER ID NUMBER
S60
S64
CARRY OUT REGISTRATION
CONNECT TO CENTER
S61
YES
S62
S63
REGISTERED CUSTOMER ?
NO
NEWLY REGISTER ?
YES
NO
DISPLAY CUSTOMER'S CUMULATIVE POINTS
S65
S66
NO
SPECIFIC GROUP ?
YES
TRANSFER POINTS
S67
END

Fig.7(B)

GROUP NAME	TARGET	TARGET POINTS	PRESENT CUMULATIVE POINTS
NAKAHARA ELEMENTARY SCHOOL	MONOCYCLES (10 SETS)	50,000	35,000
KOSUGI NURSING HOME	WHEEL CHAIRS (3 SETS)	60,000	20,000
SUPPORT ASSOCIATION FOR CHILDREN ORPHANED IN TRAFFIC ACCIDENTS	PERSONAL COMPUTER	40,000	15,000
⋮	⋮	⋮	⋮
SOMALIA AID ASSOCIATION	FOOD	300,000	80,00

LET'S PARTICIPATE IN SOCIAL CONTRIBUTION ACTIVITIES

Fig.8(A)

Fig.8

Fig.8(A)	Fig.8(B)

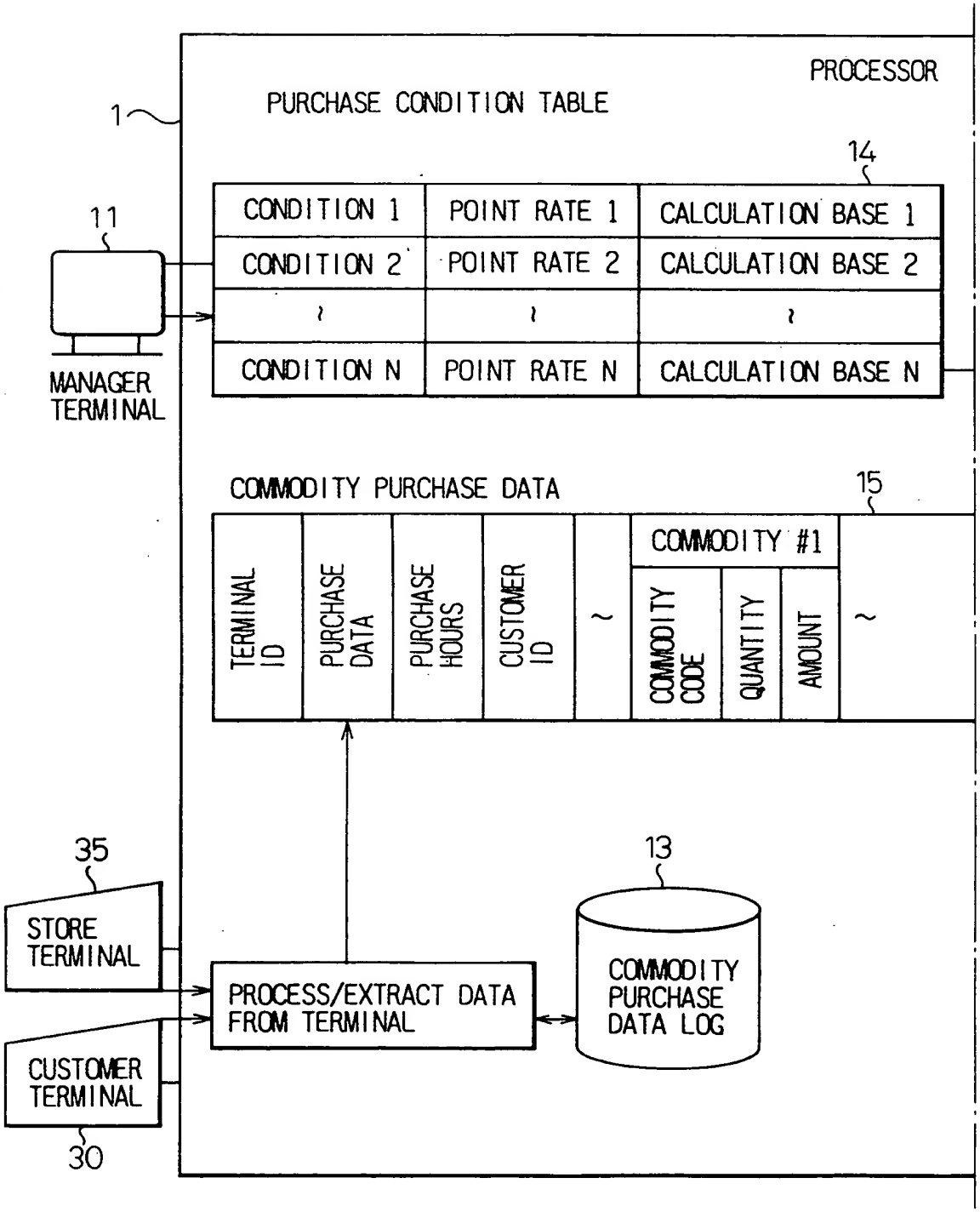


Fig.8(B)

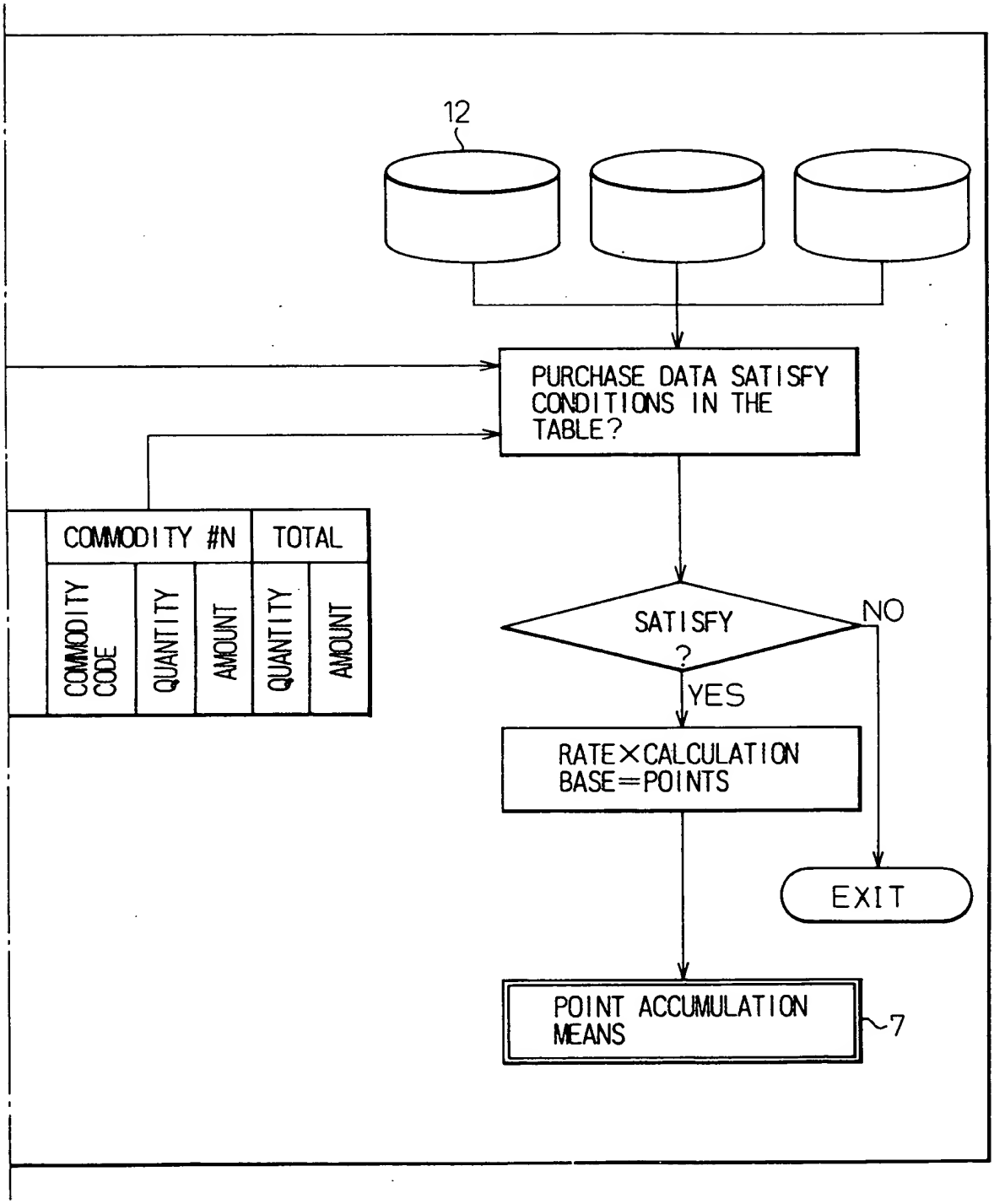

12
PURCHASE DATA SATISFY CONDITIONS IN THE TABLE?
COMMODITY #N
TOTAL
COMMODITY CODE
QUANTITY
AMOUNT
QUANTITY
AMOUNT
SATISFY ?
NO
YES
RATE×CALCULATION BASE=POINTS
EXIT
POINT ACCUMULATION MEANS
7

Fig.9(A)

SET POINT CALCULATION RATE FOR SPECIFIC DAYS

- SELECT ONE
  1. DATE: MONTH_DAY_
  2. PERIOD: MONTH_DAY_TO MONTH_DAY_
  3. DAY: _ , _
- RATE:_%
- CALCULATION BASE:
  1. AMOUNT OF MONEY 2. TOTAL POINTS

Fig.9(B)

SET POINT CALCULATION RATE FOR SPECIFIC PERIOD

- PERIOD: MONTH_DAY_TO MONTH_DAY_
- CALCULATION BASE:
  1. AMOUNT OF MONEY 2. TOTAL POINTS
  3. NUMBER OF PURCHASE ACTIONS
- MINIMUM: _ OR MORE
- RATE: _ POINTS

Fig.9(C)

SET POINT CALCULATION RATE FOR SPECIFIC AREA

- AREA CODE: _
- CALCULATION BASE:
  1. AMOUNT OF MONEY 2. TOTAL POINTS
- RATE:_%

Fig. 9(D)

SET POINT CALCULATION RATE FOR CUSTOMER'S SPECIFIC DAY

- SELECT CUSTOMER'S SPECIFIC DAY
  1. BIRTHDAY 2. WEDDING ANNIVERSARY
  3. BIRTHDAYS OF FAMILY 4. DATE OF ADMISSION
- CALCULATION BASE:
  1. AMOUNT OF MONEY 2. TOTAL POINTS
- RATE:__%

Fig. 9(E)

SET POINT CALCULATION RATE FOR SPECIFIC TIME BAND

- SPECIFY TIME BAND
  __:__TO__:__
- CALCULATION BASE:
  1. AMOUNT OF MONEY 2. TOTAL POINTS
- RATE:__%

Fig. 9(F)

SET POINT CALCULATION RATE FOR SPECIFIC COMMODITIES

COMMODITY CODE	COMMODITY NAME
⟆	⟆

- RATE: __ % (COMMODITY PRICE)

EP 0 694 874 A2

Fig. 9(G)

SET POINT CALCULATION RATE FOR NUMBER OF PURCHASE

NUMBER OF PURCHASE	RATE
1 TO 30	1%
31 TO 60	2%
61 -	3%

(POINTS ARE CALCULATED ON TOTAL AMOUNT.)

Fig. 9(H)

SET POINT CALCULATION RATE FOR NUMBER OF ACCESSES

NUMBER OF ACCESSES	RATE
1 TO 100	1%
101 TO 300	2%
301 -	3%

(POINTS ARE CALCULATED ON TOTAL AMOUNT.)

Fig. 9(I)

SET POINT CALCULATION RATE FOR AMOUNT

PURCHASE AMOUNT	RATE
¥10,000～¥20,000	1%
¥20,001～¥40,000	2%
¥40,001～	3%

(POINTS ARE CALCULATED ON TOTAL AMOUNT.)

JP 2001-344540 A 2001.12.14

Fig. 9(J)

SET POINT CALCULATION RATE FOR CUSTOMER RANK

CUSTOMER RANK	RATE	CUSTOMER RANK	RATE
AAA	__ %	C	__ %
AA	__ %	D	__ %
A	__ %	E	__ %
B	__ %	F	__ %

(POINTS ARE CALCULATED ON TOTAL AMOUNT.)

Fig.10(A)

Fig.10

Fig.10(A)	Fig.10(B)

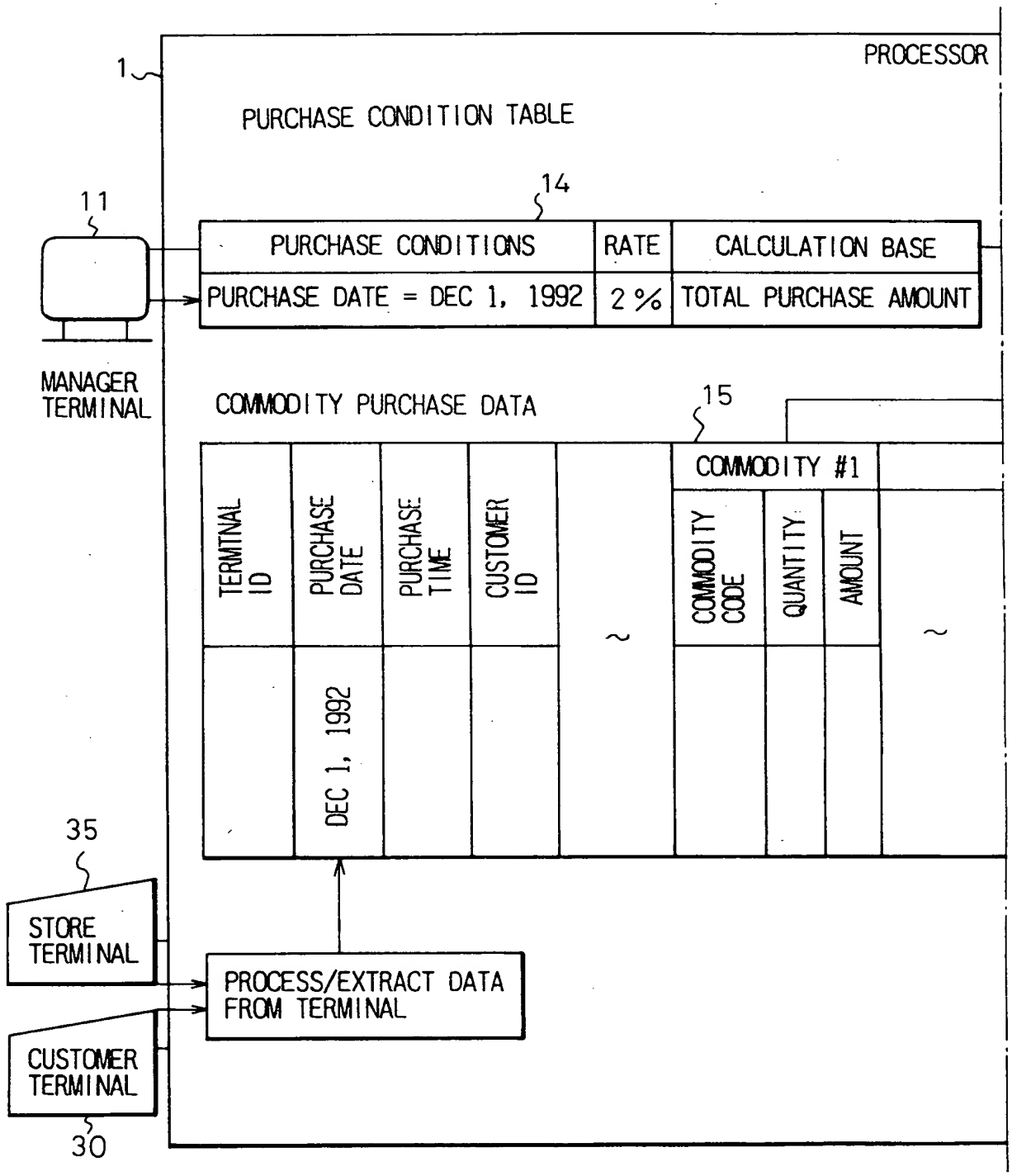


Fig.10(B)

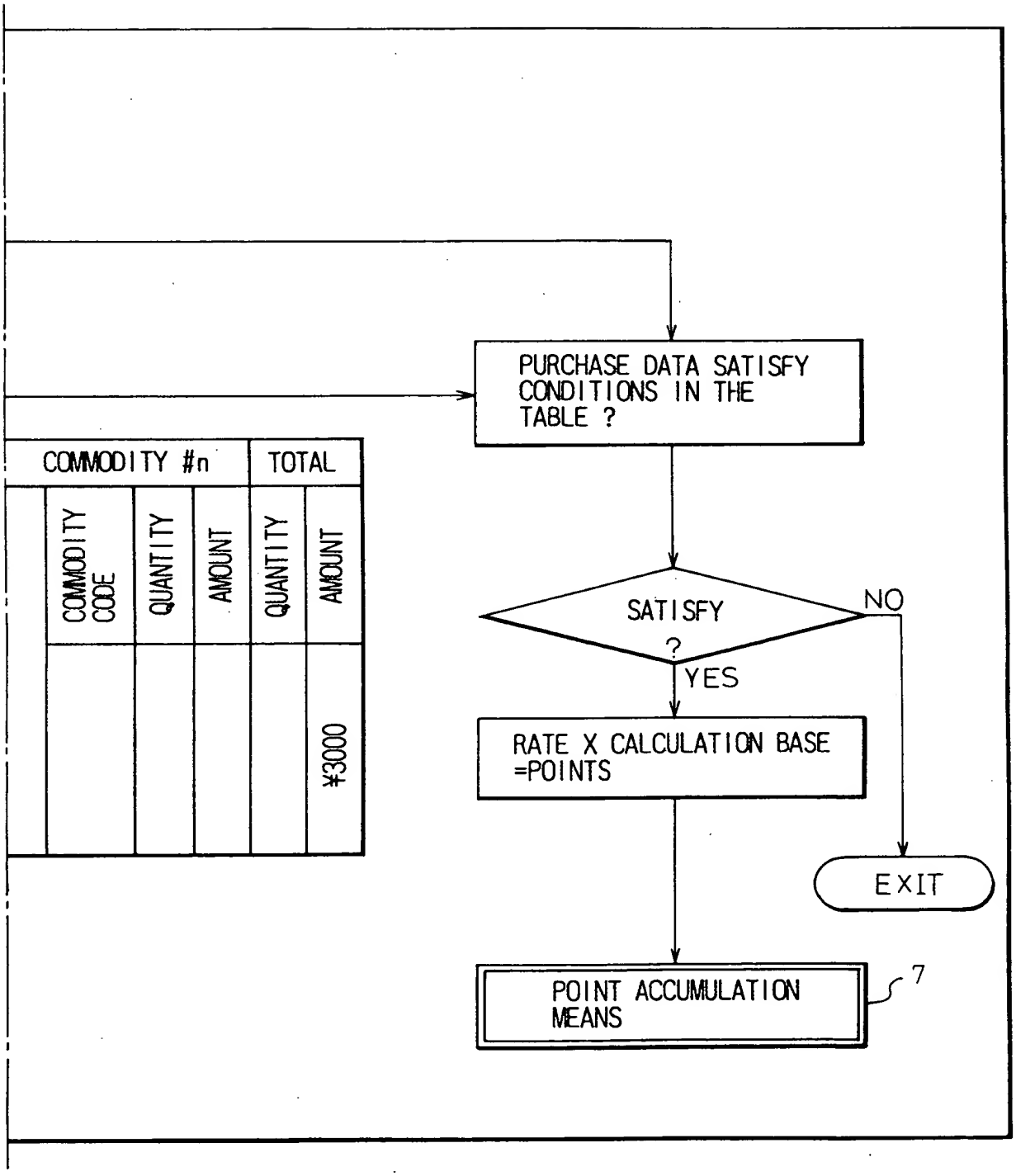

PURCHASE DATA SATISFY CONDITIONS IN THE TABLE ?
COMMODITY #n
COMMODITY CODE
QUANTITY
AMOUNT
TOTAL
QUANTITY
AMOUNT
¥3000
SATISFY ?
NO
YES
RATE X CALCULATION BASE =POINTS
EXIT
POINT ACCUMULATION MEANS
7

Fig.11(A)

Fig.11

Fig.11(A)	Fig.11(B)

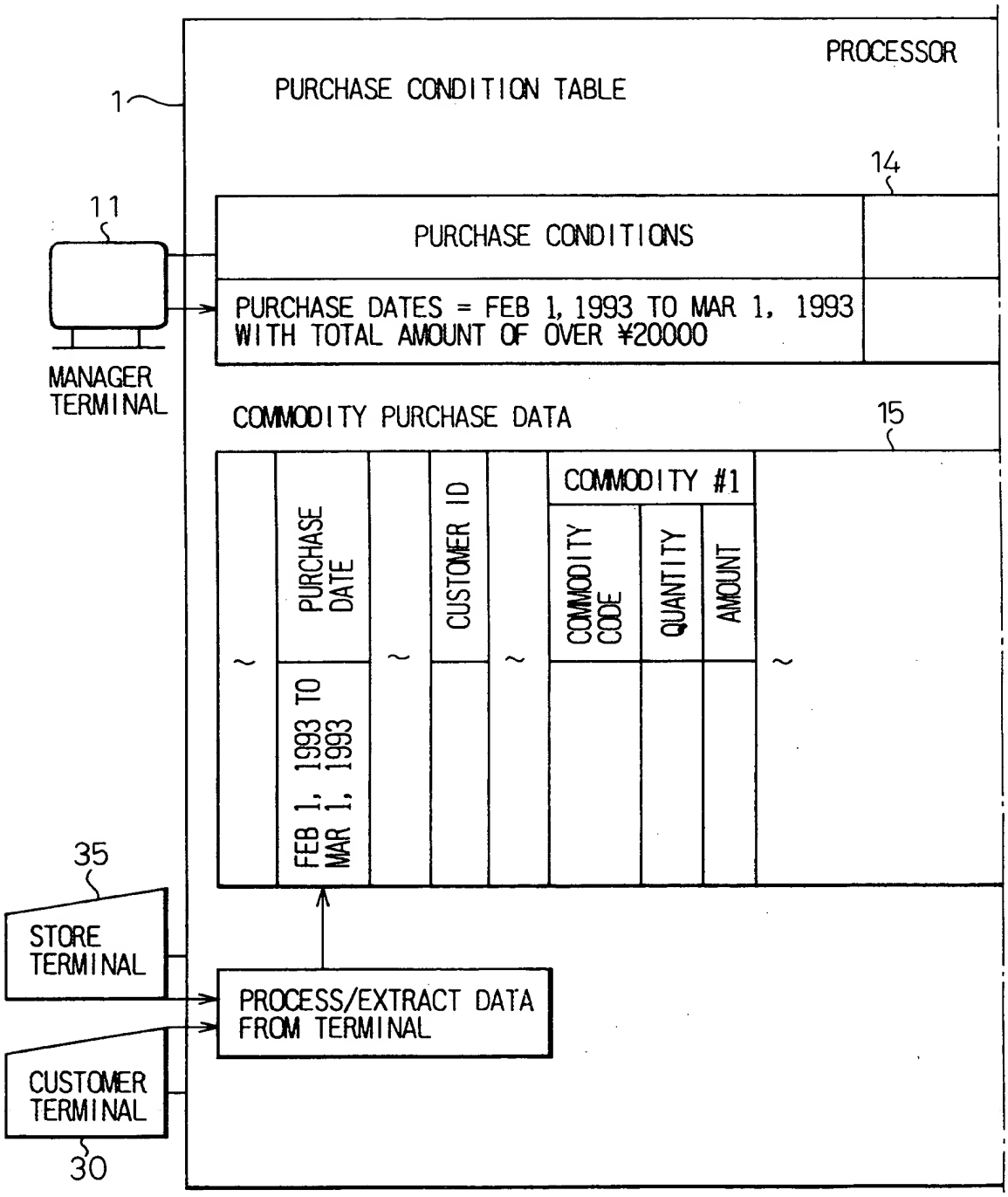


Fig.11(B)

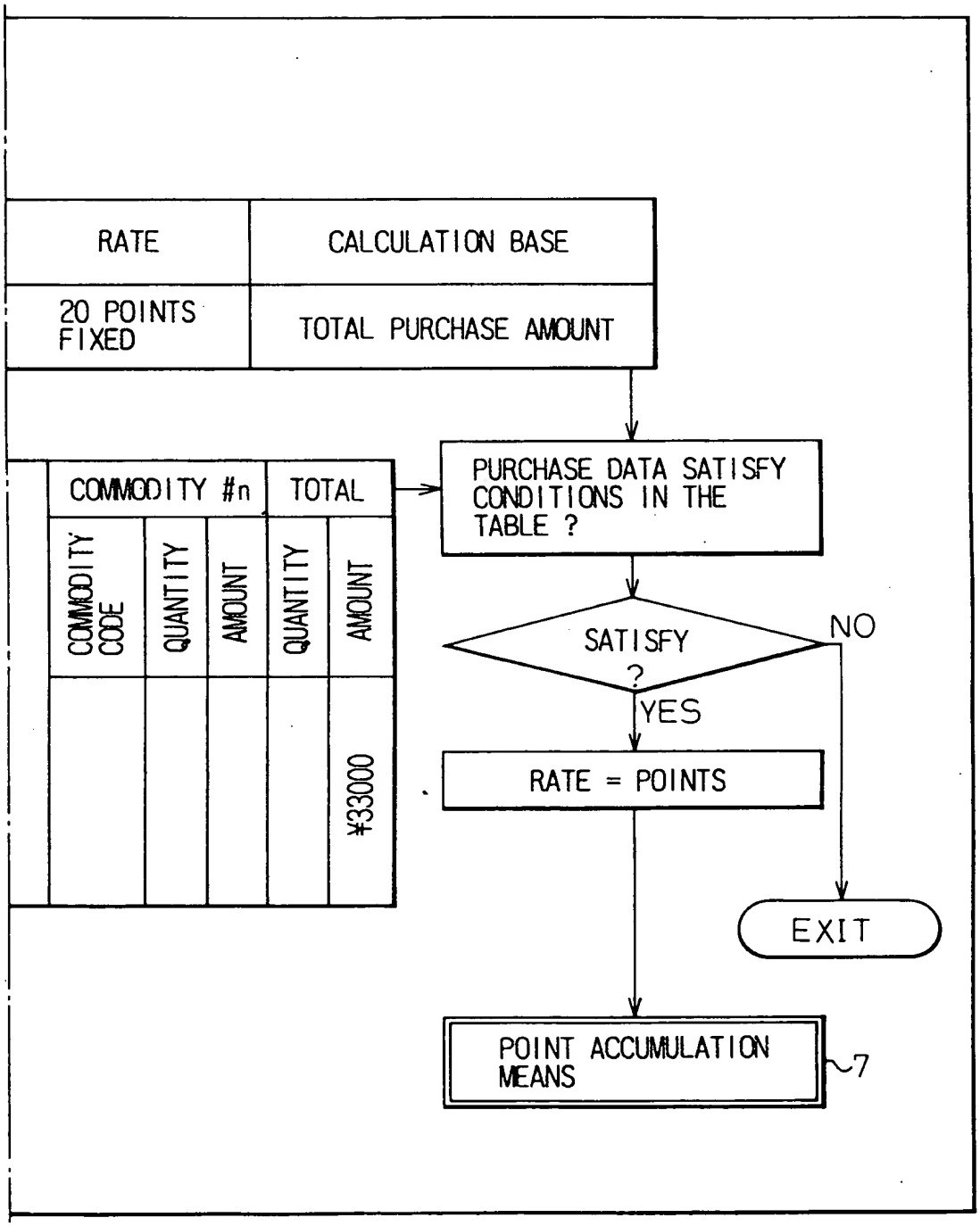

RATE
CALCULATION BASE
20 POINTS FIXED
TOTAL PURCHASE AMOUNT
COMMODITY #n
TOTAL
COMMODITY CODE
QUANTITY
AMOUNT
QUANTITY
AMOUNT
¥33000
PURCHASE DATA SATISFY CONDITIONS IN THE TABLE ?
SATISFY ?
NO
YES
RATE = POINTS
EXIT
POINT ACCUMULATION MEANS
7

Fig.12(A)

Fig.12

Fig.12(A)	Fig.12(B)

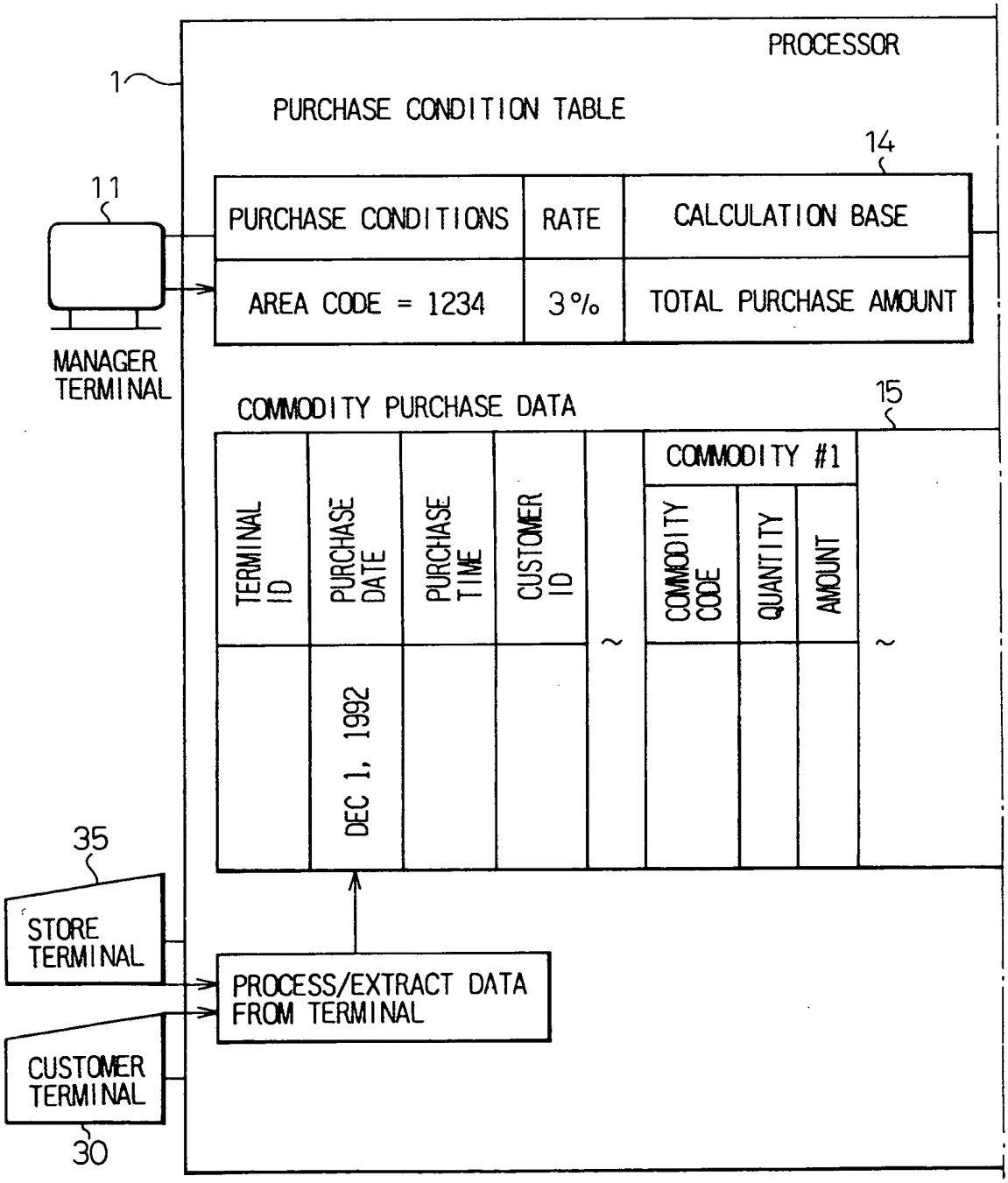


Fig.12(B)

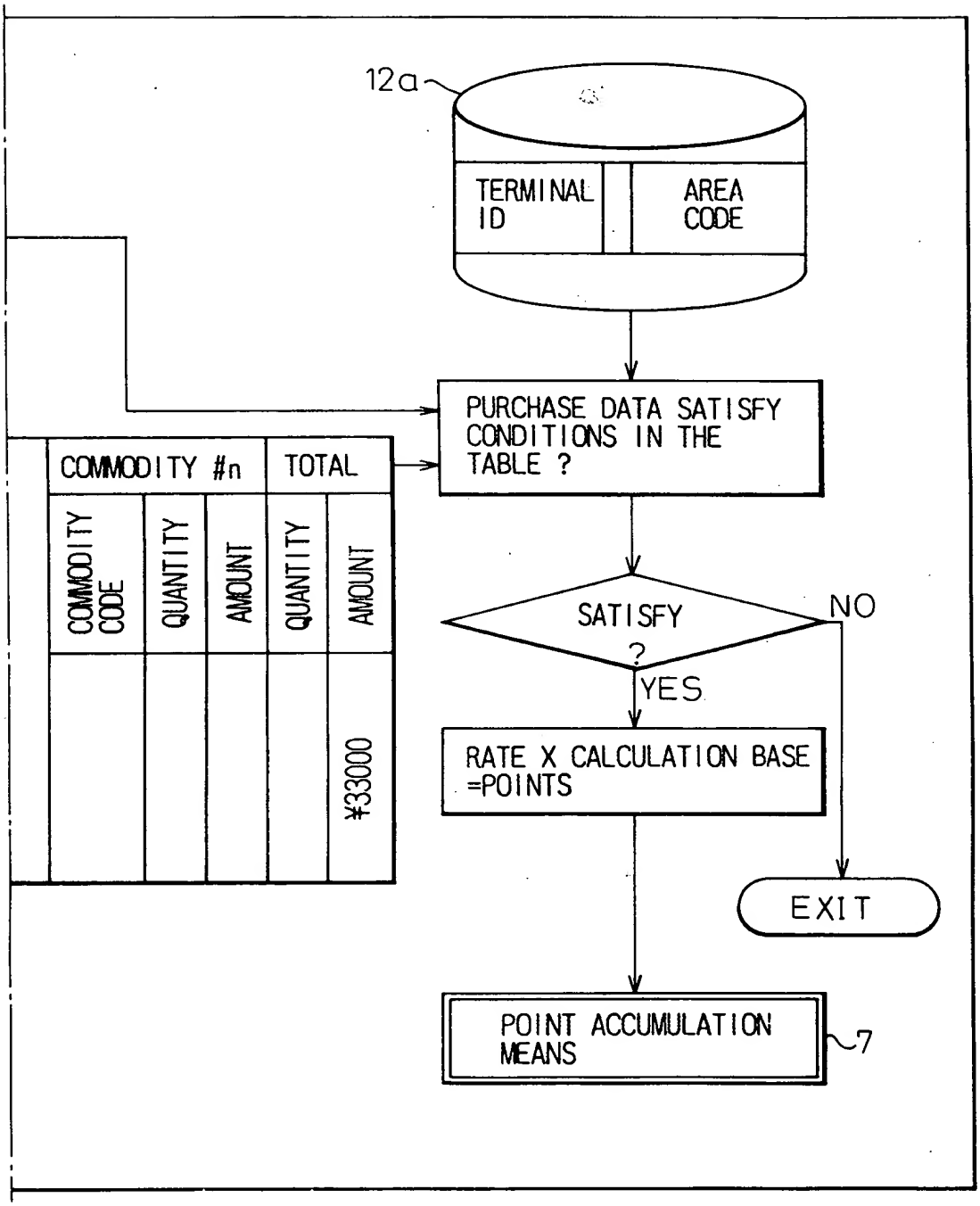

12a
TERMINAL ID
AREA CODE
PURCHASE DATA SATISFY CONDITIONS IN THE TABLE ?
COMMODITY #n
TOTAL
COMMODITY CODE
QUANTITY
AMOUNT
QUANTITY
AMOUNT
¥33000
SATISFY ?
NO
YES
RATE X CALCULATION BASE =POINTS
EXIT
POINT ACCUMULATION MEANS
7

Fig.13(A)

Fig.13

Fig.13(A)	Fig.13(B)

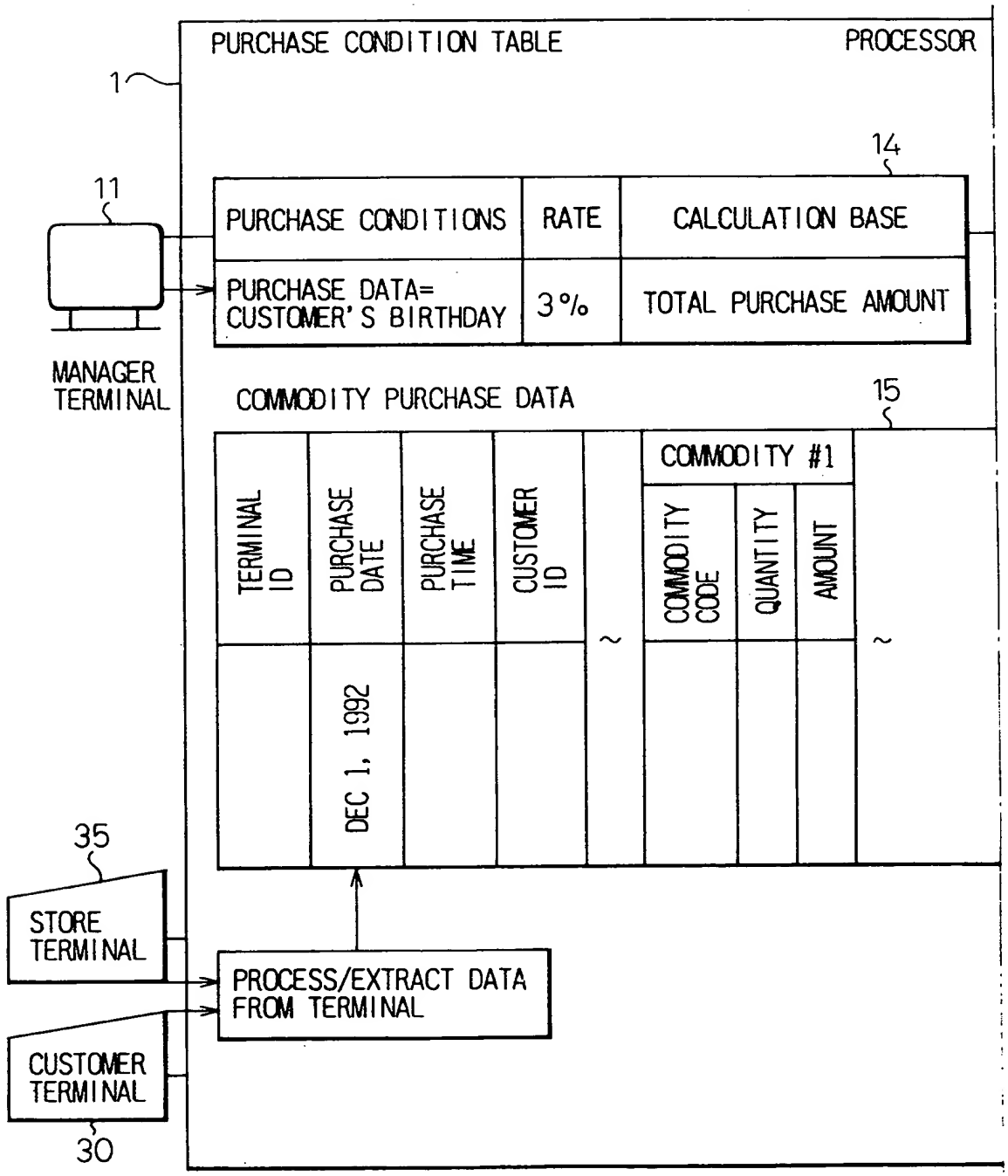


Fig.13(B)

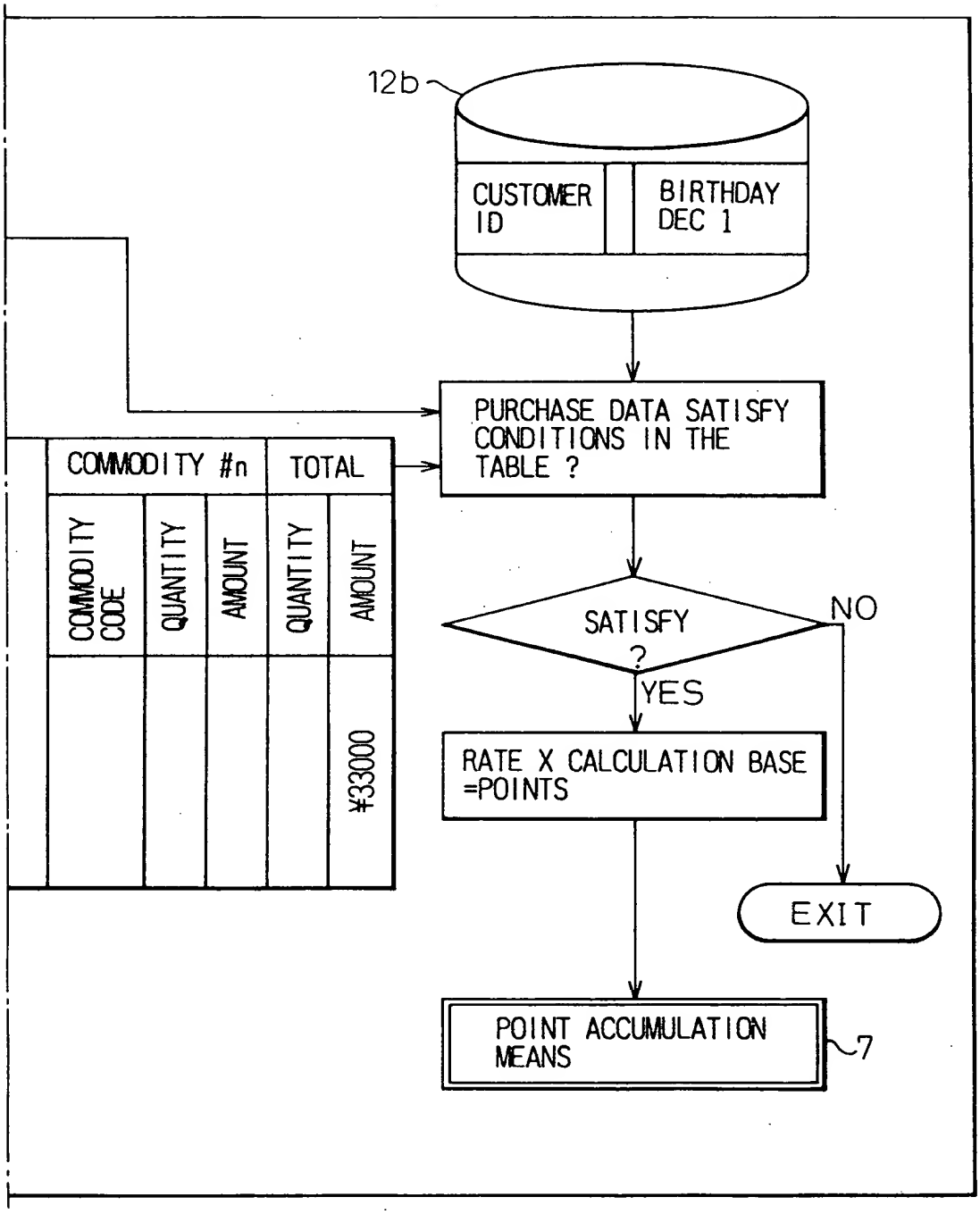

12b
CUSTOMER ID
BIRTHDAY DEC 1
PURCHASE DATA SATISFY CONDITIONS IN THE TABLE ?
COMMODITY #n
TOTAL
COMMODITY CODE
QUANTITY
AMOUNT
QUANTITY
AMOUNT
¥33000
SATISFY ?
NO
YES
RATE X CALCULATION BASE =POINTS
EXIT
POINT ACCUMULATION MEANS
7

Fig.14(A)

Fig.14

Fig.14(A)	Fig.14(B)

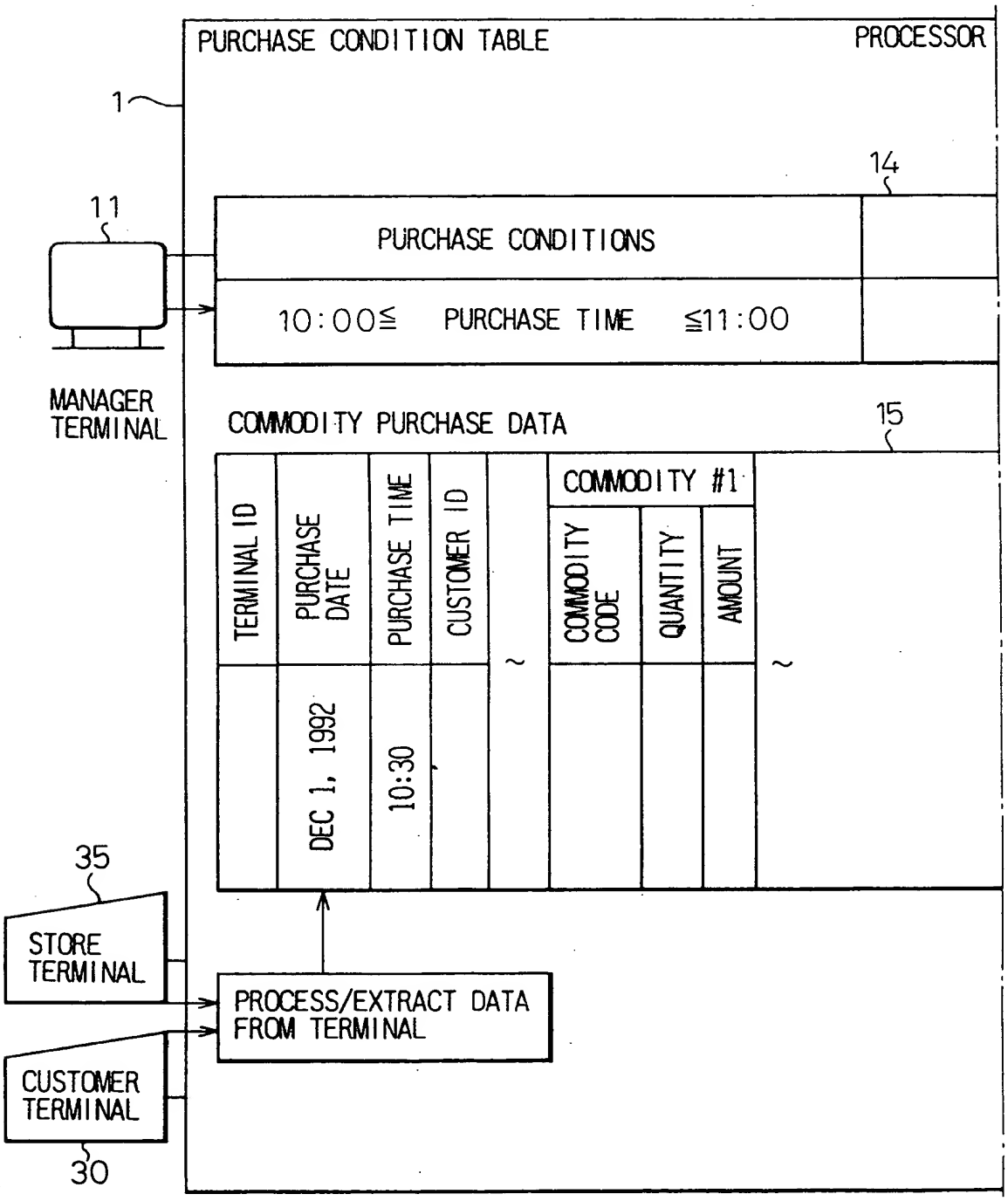


Fig.14(B)

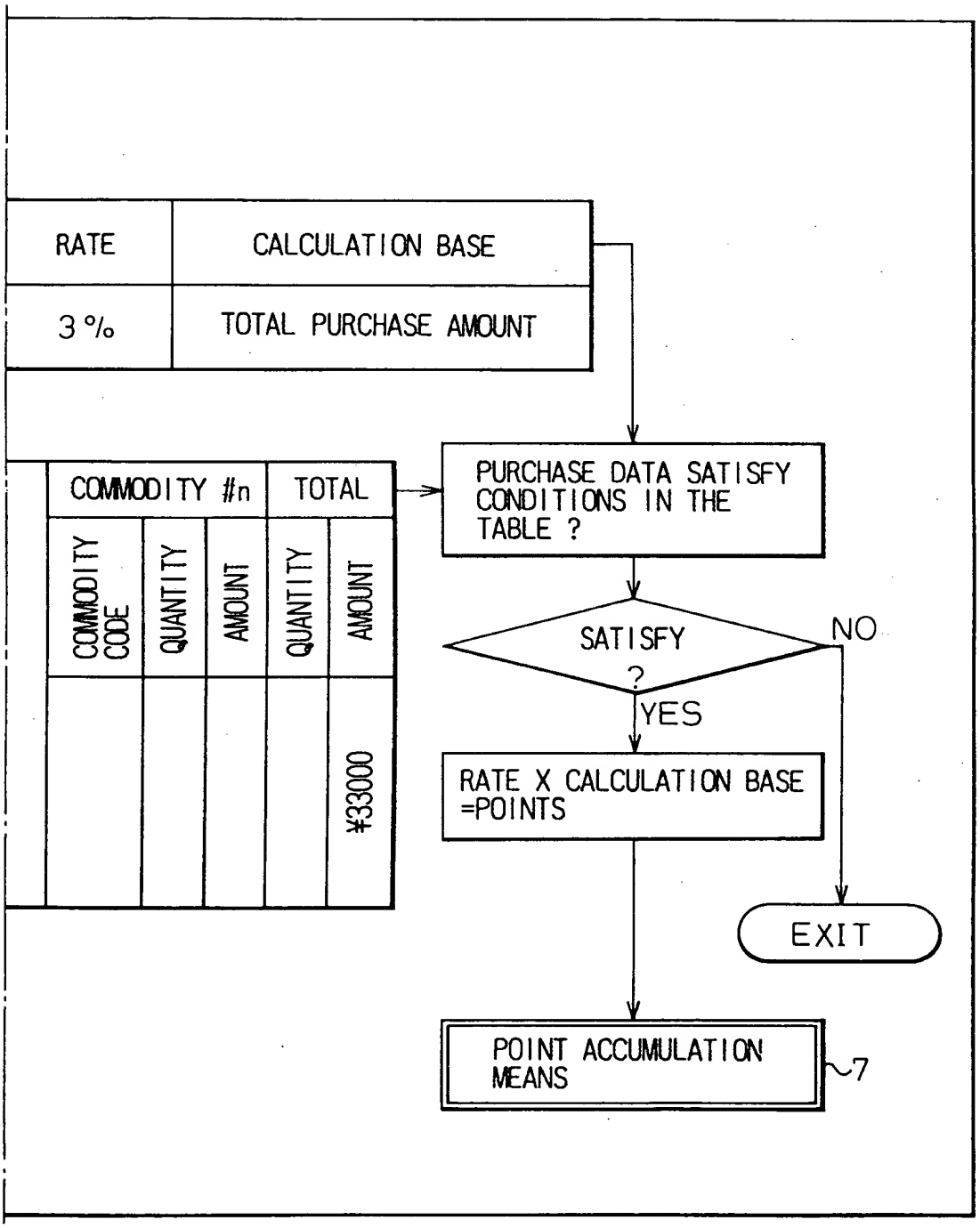

RATE
CALCULATION BASE
3 %
TOTAL PURCHASE AMOUNT
COMMODITY #n
TOTAL
COMMODITY CODE
QUANTITY
AMOUNT
QUANTITY
AMOUNT
¥33000
PURCHASE DATA SATISFY CONDITIONS IN THE TABLE ?
SATISFY ?
NO
YES
RATE X CALCULATION BASE =POINTS
EXIT
POINT ACCUMULATION MEANS
7

Fig.15(A)

Fig.15

Fig.15(A)	Fig.15(B)

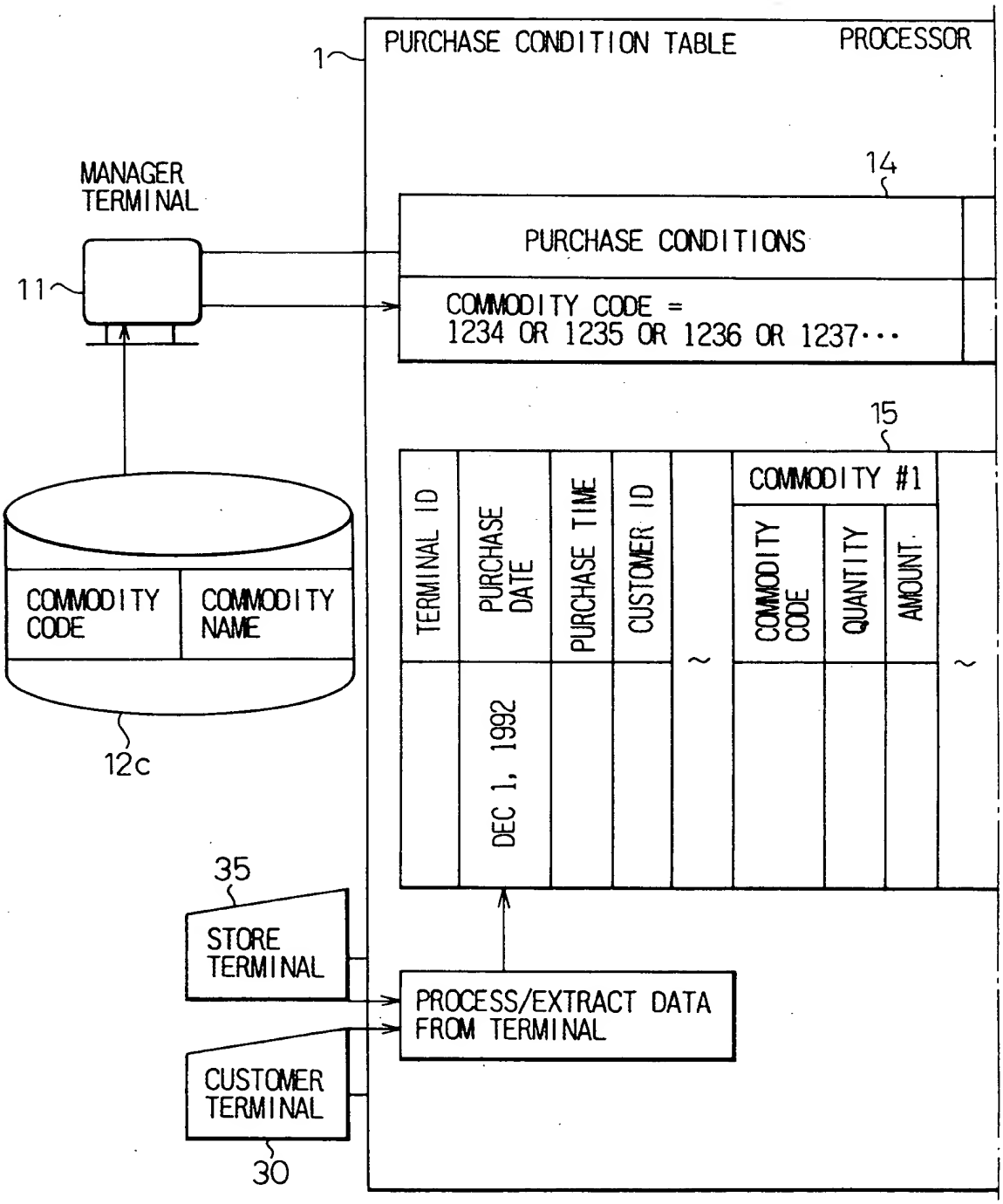


Fig.15(B)

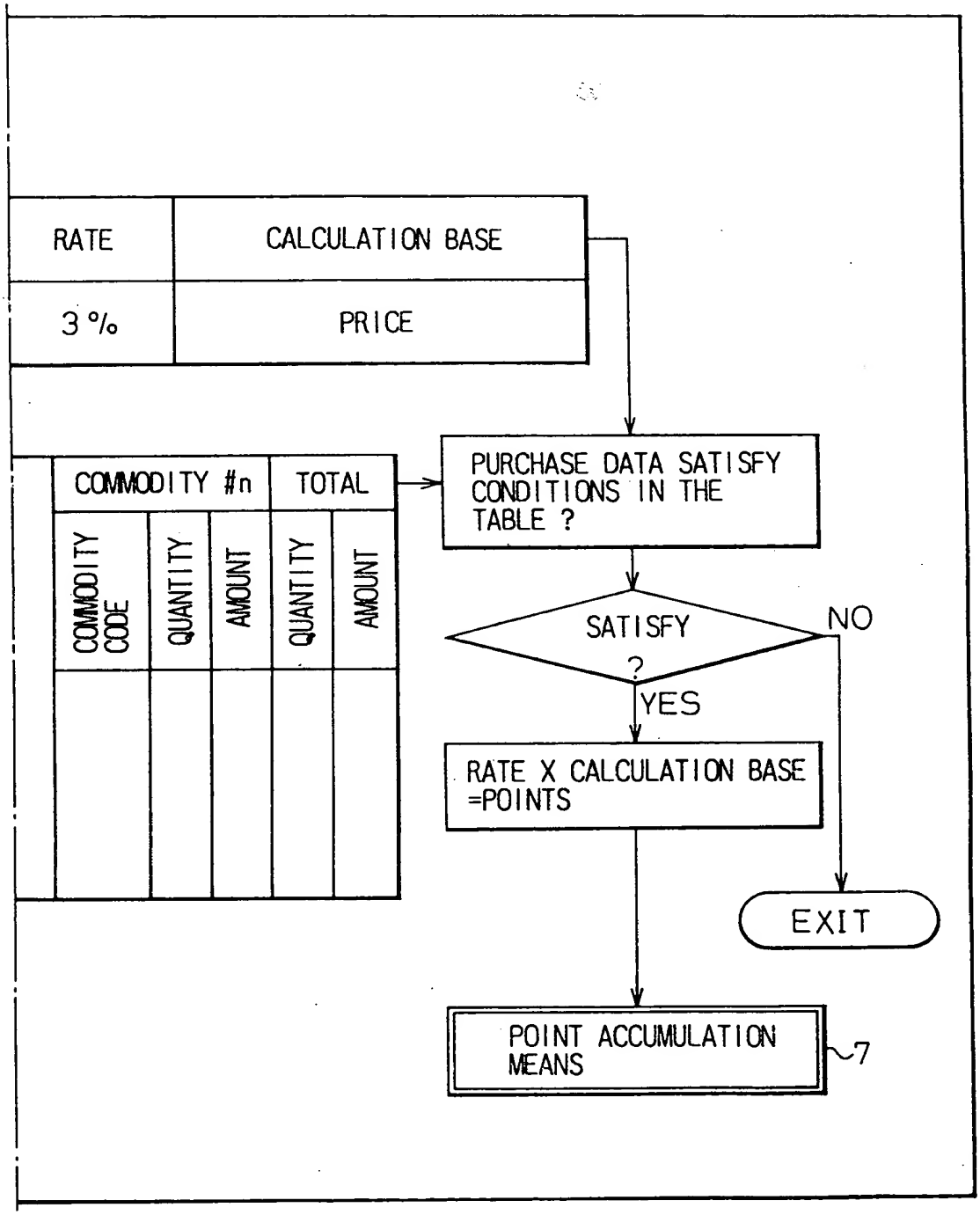

RATE
CALCULATION BASE
3 %
PRICE
COMMODITY #n
TOTAL
COMMODITY CODE
QUANTITY
AMOUNT
QUANTITY
AMOUNT
PURCHASE DATA SATISFY CONDITIONS IN THE TABLE ?
SATISFY ?
NO
YES
RATE X CALCULATION BASE =POINTS
EXIT
POINT ACCUMULATION MEANS
7

Fig.16(A)

Fig.16

Fig.16(A)	Fig.16(B)

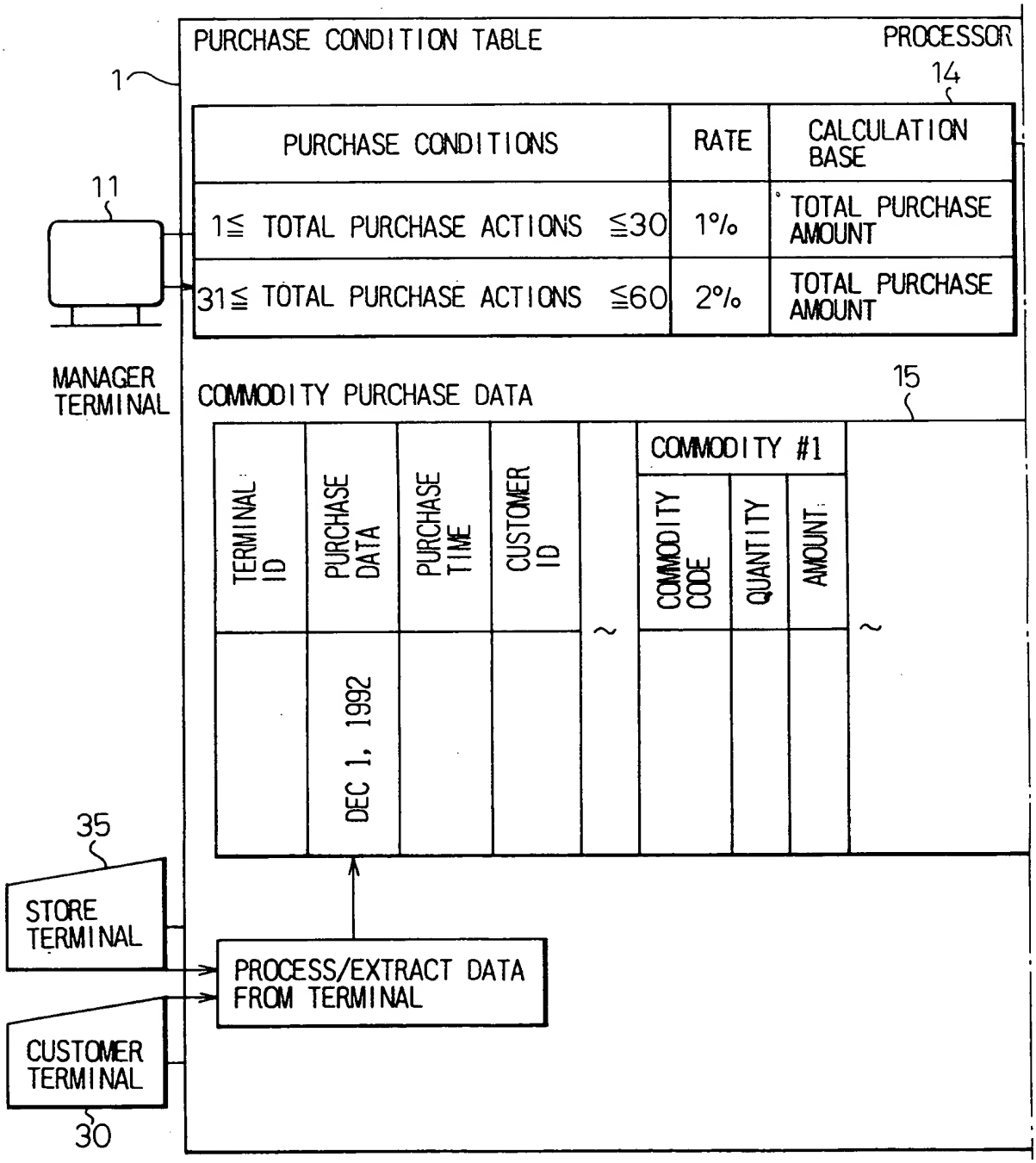


Fig.16(B)

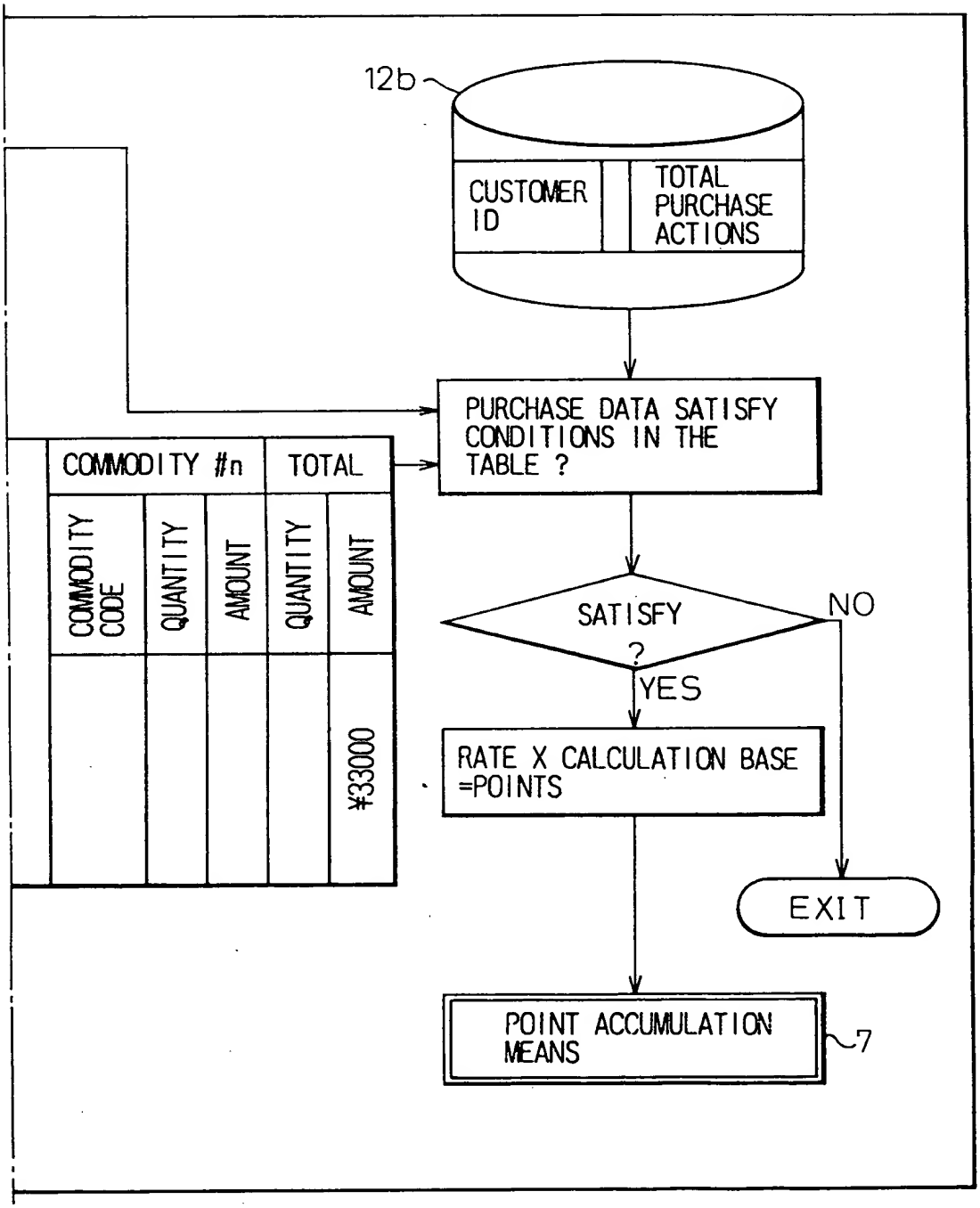

12b
CUSTOMER ID
TOTAL PURCHASE ACTIONS
PURCHASE DATA SATISFY CONDITIONS IN THE TABLE ?
COMMODITY #n
TOTAL
COMMODITY CODE
QUANTITY
AMOUNT
QUANTITY
AMOUNT
¥33000
SATISFY ?
NO
YES
RATE X CALCULATION BASE =POINTS
EXIT
POINT ACCUMULATION MEANS
7

Fig.17(A)

Fig.17

Fig.17(A)	Fig.17(B)

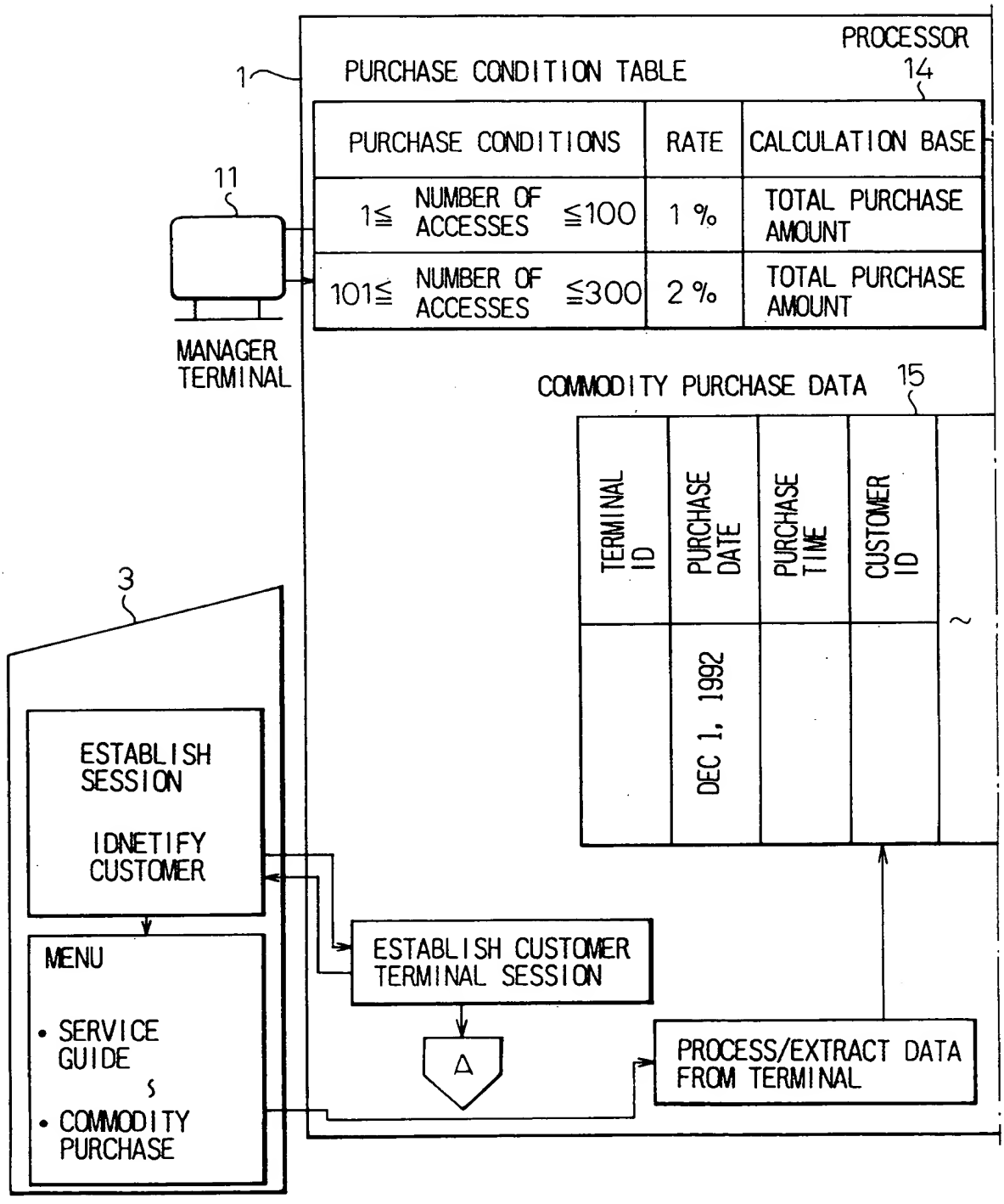


Fig.17(B)

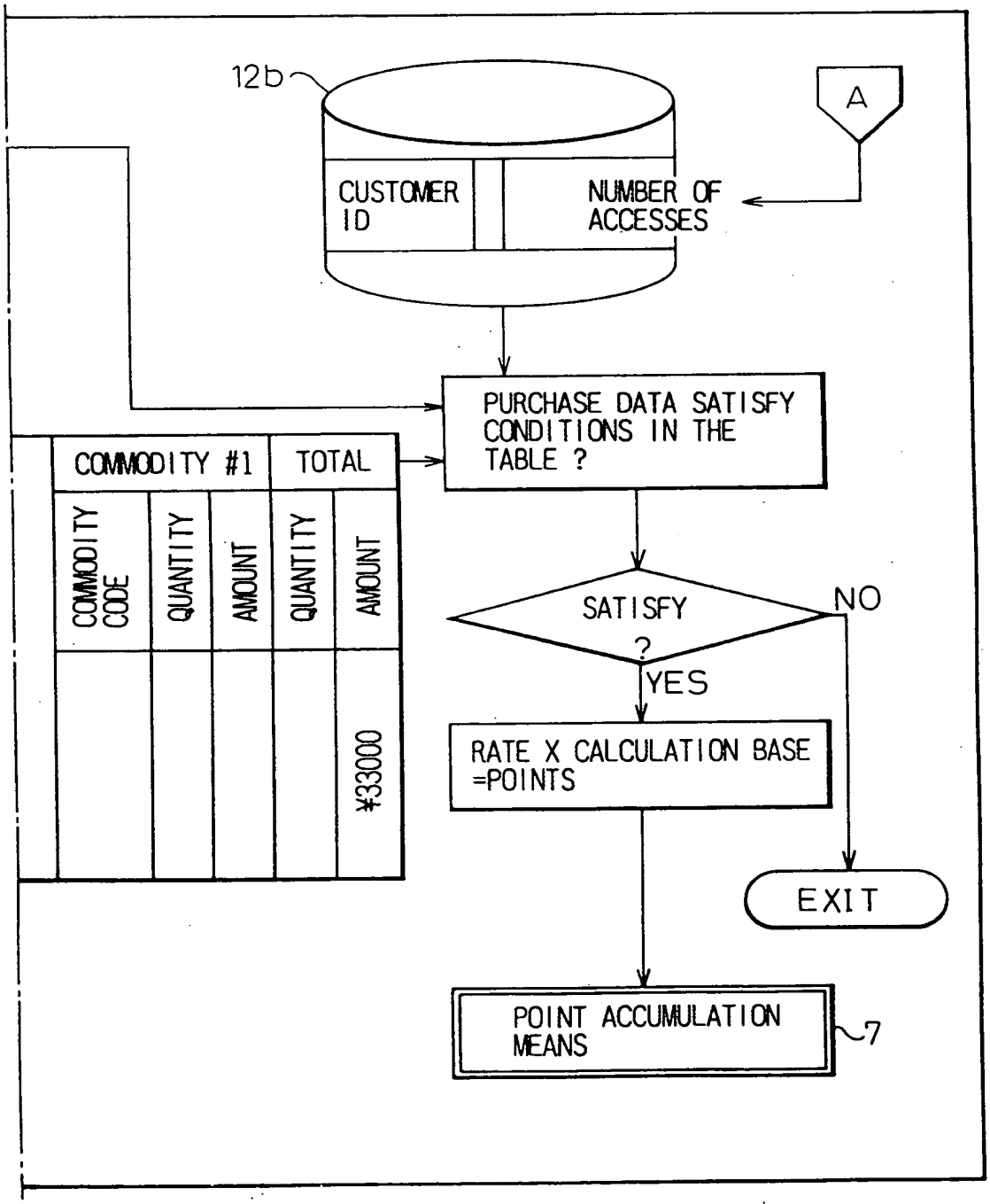

12b
A
CUSTOMER ID
NUMBER OF ACCESSES
PURCHASE DATA SATISFY CONDITIONS IN THE TABLE ?
COMMODITY #1
TOTAL
COMMODITY CODE
QUANTITY
AMOUNT
QUANTITY
AMOUNT
¥33000
SATISFY ?
NO
YES
RATE X CALCULATION BASE =POINTS
EXIT
POINT ACCUMULATION MEANS
7

Fig.18(A)

Fig.18

Fig.18(A)	Fig.18(B)

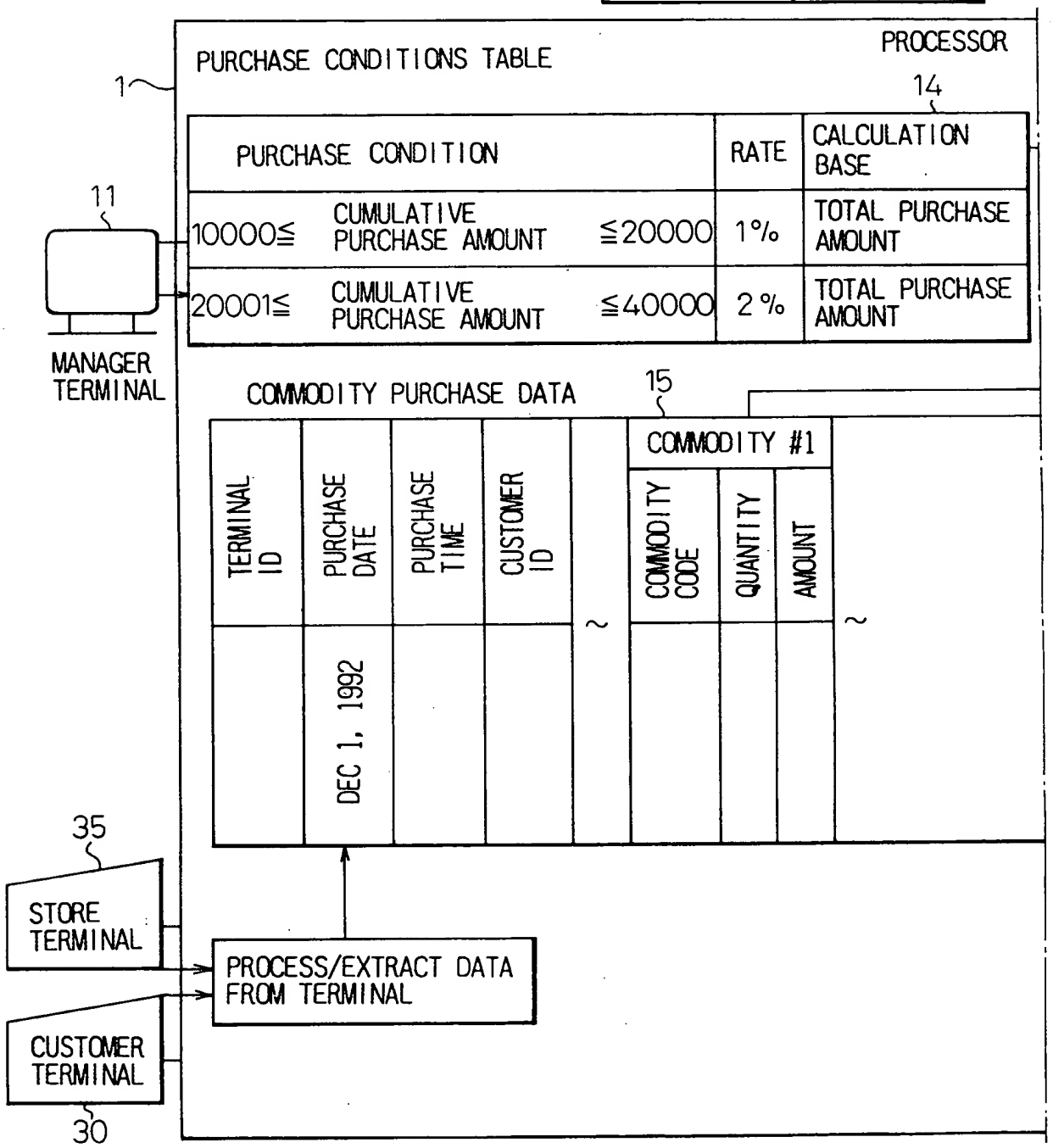


Fig.18(B)

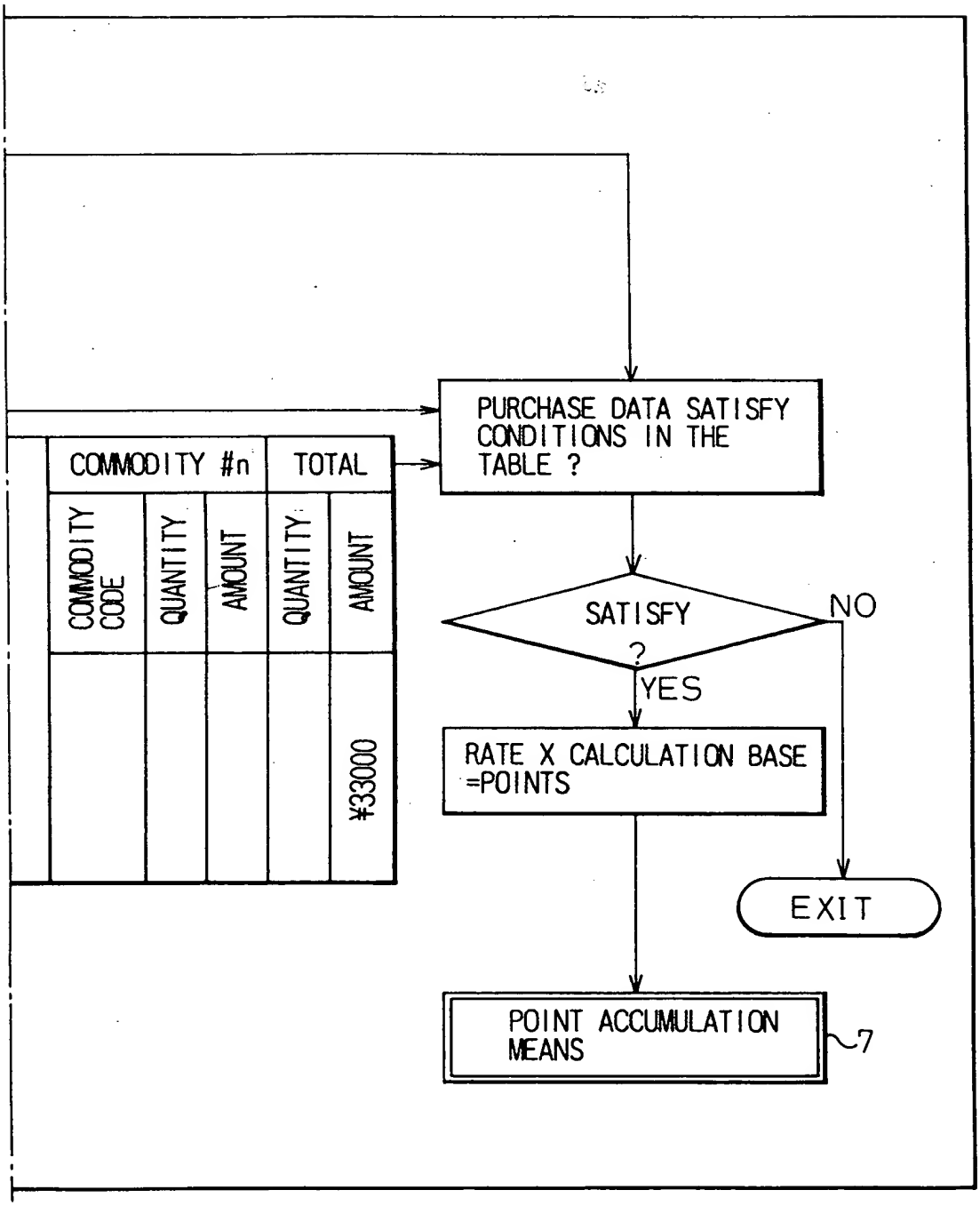

COMMODITY #n
TOTAL
COMMODITY CODE
QUANTITY
AMOUNT
QUANTITY
AMOUNT
¥33000
PURCHASE DATA SATISFY CONDITIONS IN THE TABLE ?
SATISFY ?
NO
YES
RATE X CALCULATION BASE =POINTS
EXIT
POINT ACCUMULATION MEANS
7

Fig.19(A)

Fig.19

Fig.19(A)	Fig.19(B)

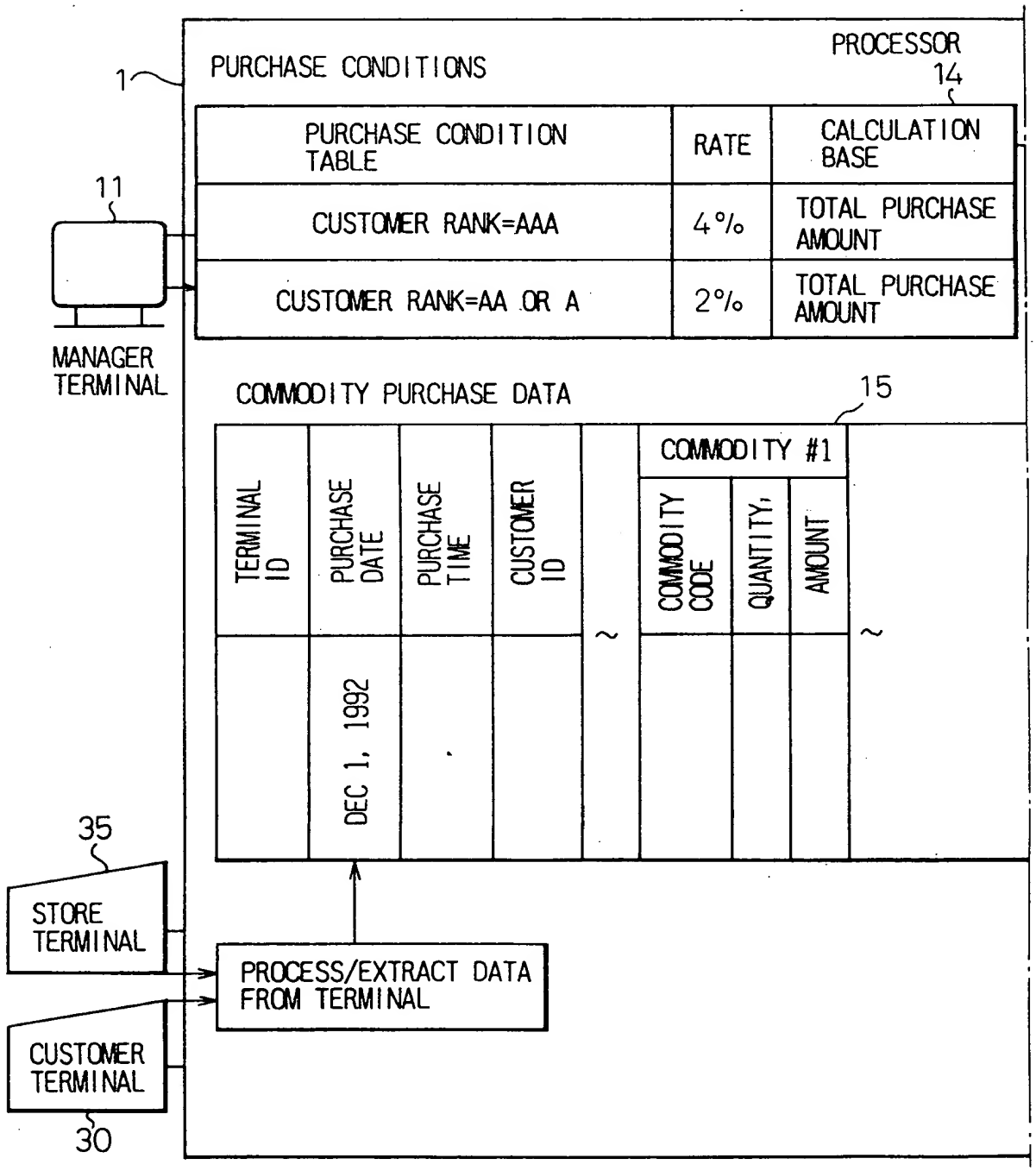


Fig.19(B)

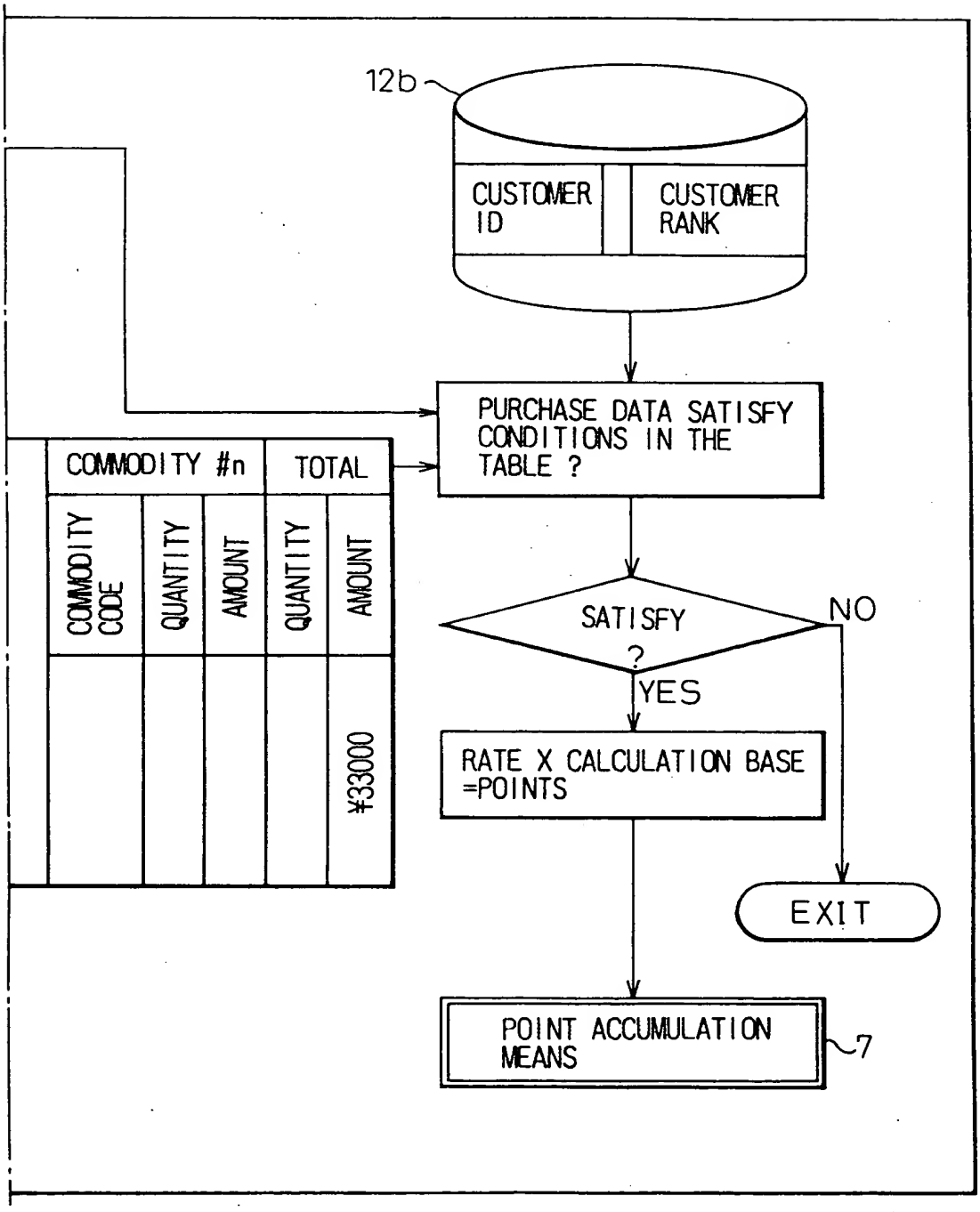

12b
CUSTOMER ID
CUSTOMER RANK
PURCHASE DATA SATISFY CONDITIONS IN THE TABLE ?
COMMODITY #n
TOTAL
COMMODITY CODE
QUANTITY
AMOUNT
QUANTITY
AMOUNT
¥33000
SATISFY ?
NO
YES
RATE X CALCULATION BASE =POINTS
EXIT
POINT ACCUMULATION MEANS
7

Fig. 20

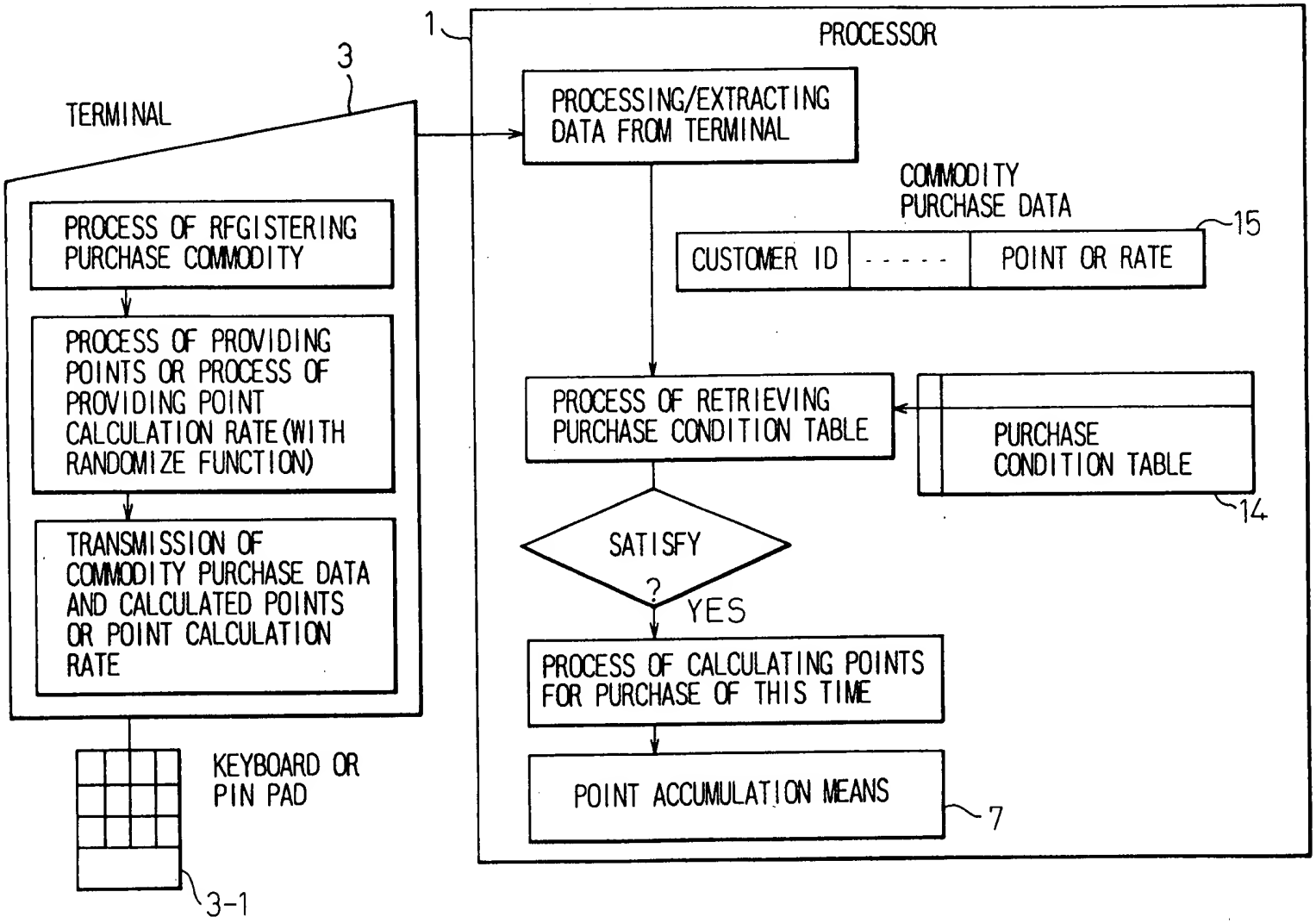

1
PROCESSOR
3
TERMINAL
PROCESSING/EXTRACTING DATA FROM TERMINAL
COMMODITY PURCHASE DATA
15
CUSTOMER ID
- - - - -
POINT OR RATE
PROCESS OF REGISTERING PURCHASE COMMODITY
PROCESS OF PROVIDING POINTS OR PROCESS OF PROVIDING POINT CALCULATION RATE (WITH RANDOMIZE FUNCTION)
TRANSMISSION OF COMMODITY PURCHASE DATA AND CALCULATED POINTS OR POINT CALCULATION RATE
PROCESS OF RETRIEVING PURCHASE CONDITION TABLE
PURCHASE CONDITION TABLE
14
SATISFY ?
YES
PROCESS OF CALCULATING POINTS FOR PURCHASE OF THIS TIME
POINT ACCUMULATION MEANS
7
KEYBOARD OR PIN PAD
3-1

Fig.21

Fig.21(A) | Fig.21(B)

Fig.21(A)

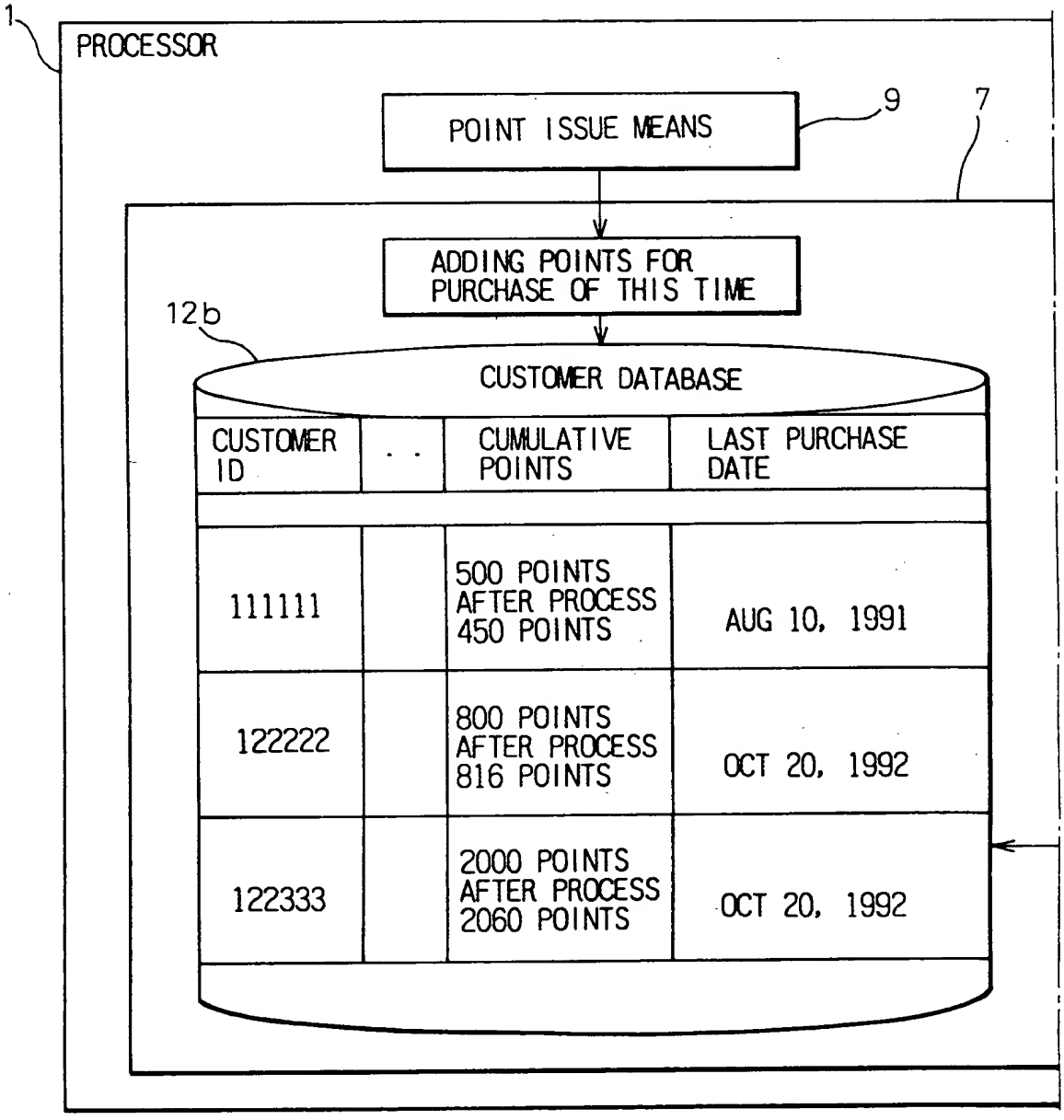


Fig.21(B)

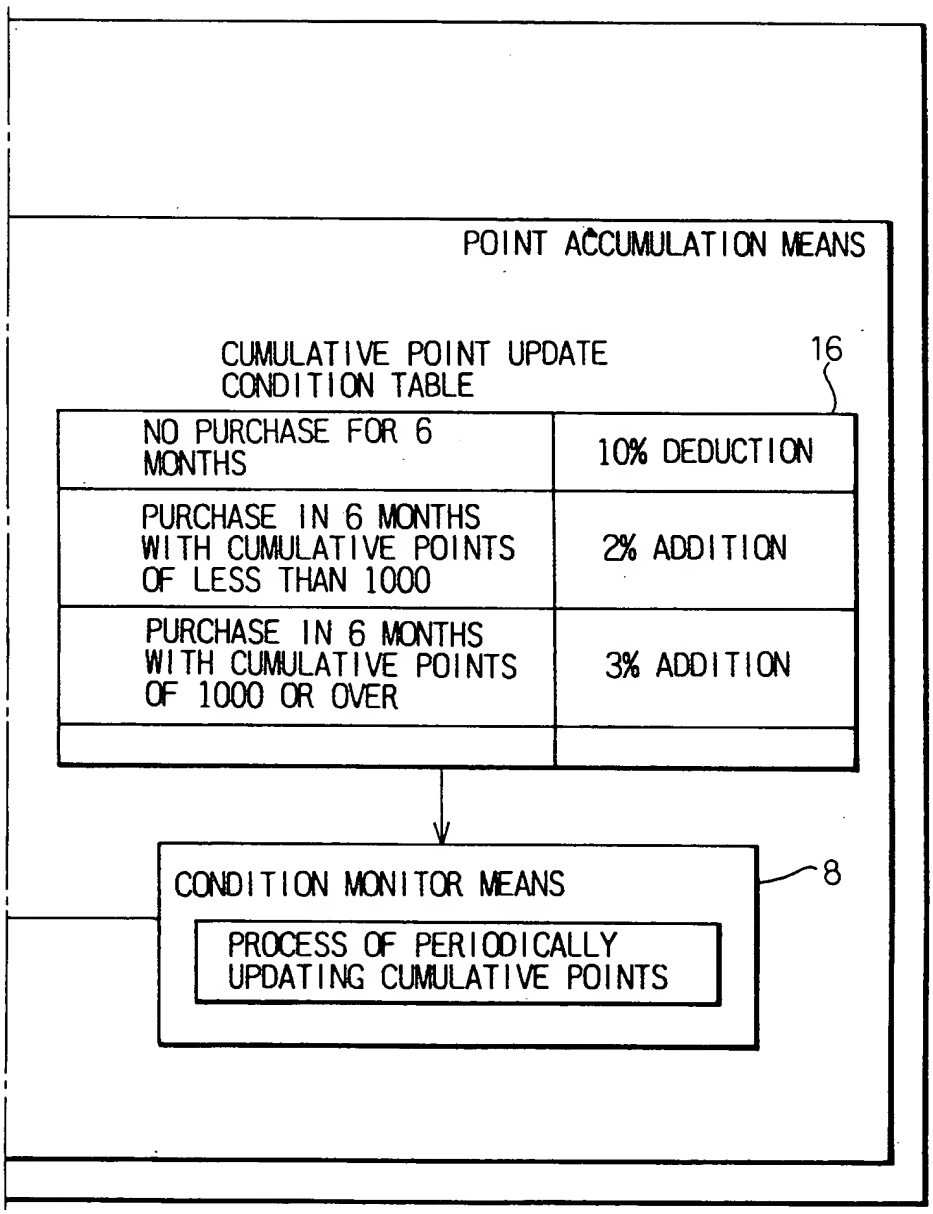

POINT ACCUMULATION MEANS
CUMULATIVE POINT UPDATE CONDITION TABLE
16
NO PURCHASE FOR 6 MONTHS
10% DEDUCTION
PURCHASE IN 6 MONTHS WITH CUMULATIVE POINTS OF LESS THAN 1000
2% ADDITION
PURCHASE IN 6 MONTHS WITH CUMULATIVE POINTS OF 1000 OR OVER
3% ADDITION
CONDITION MONITOR MEANS
8
PROCESS OF PERIODICALLY UPDATING CUMULATIVE POINTS

Fig.22

Fig.22(A)
Fig.22(B)

Fig.22(A)

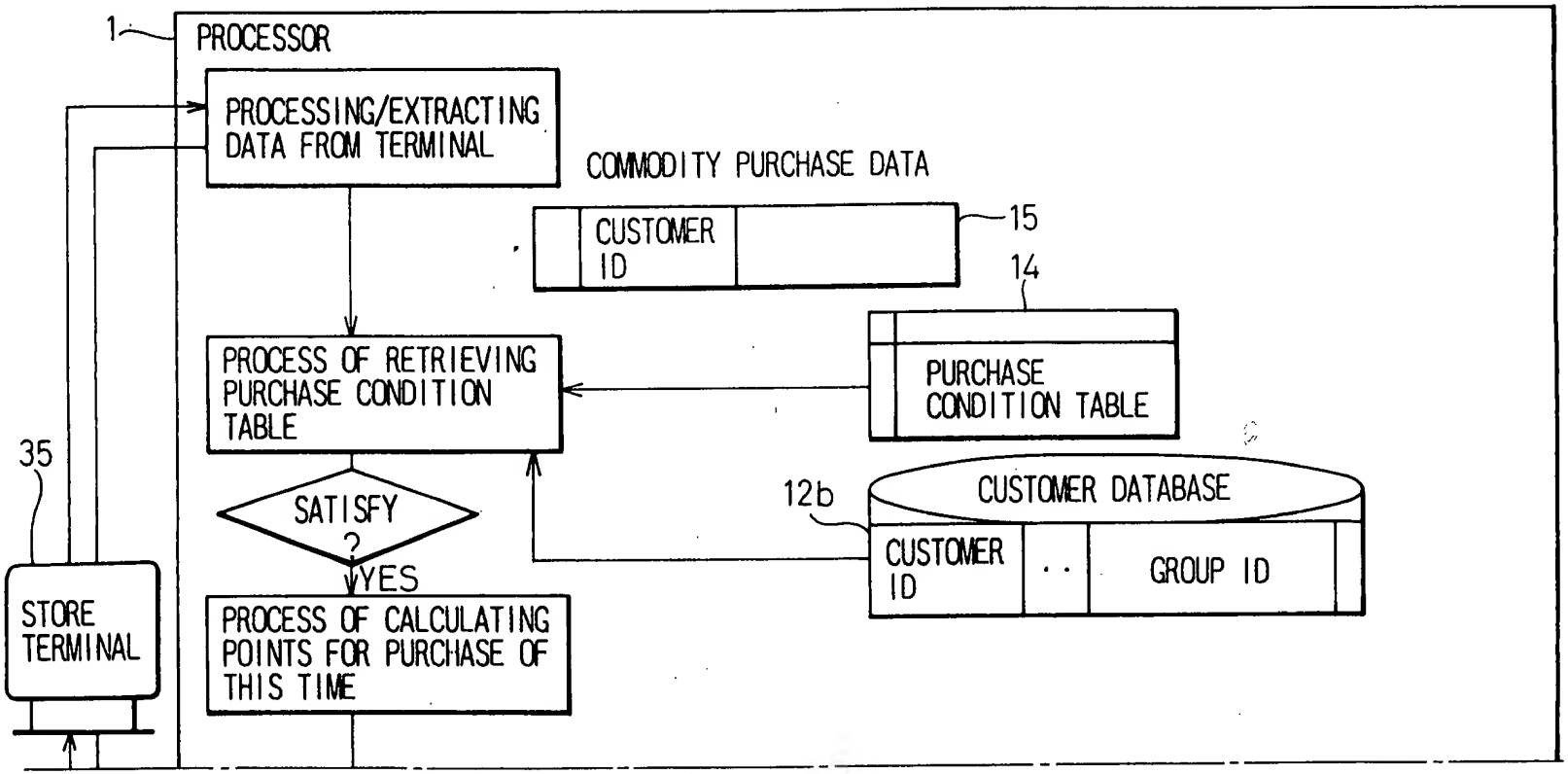


Fig.22(B)

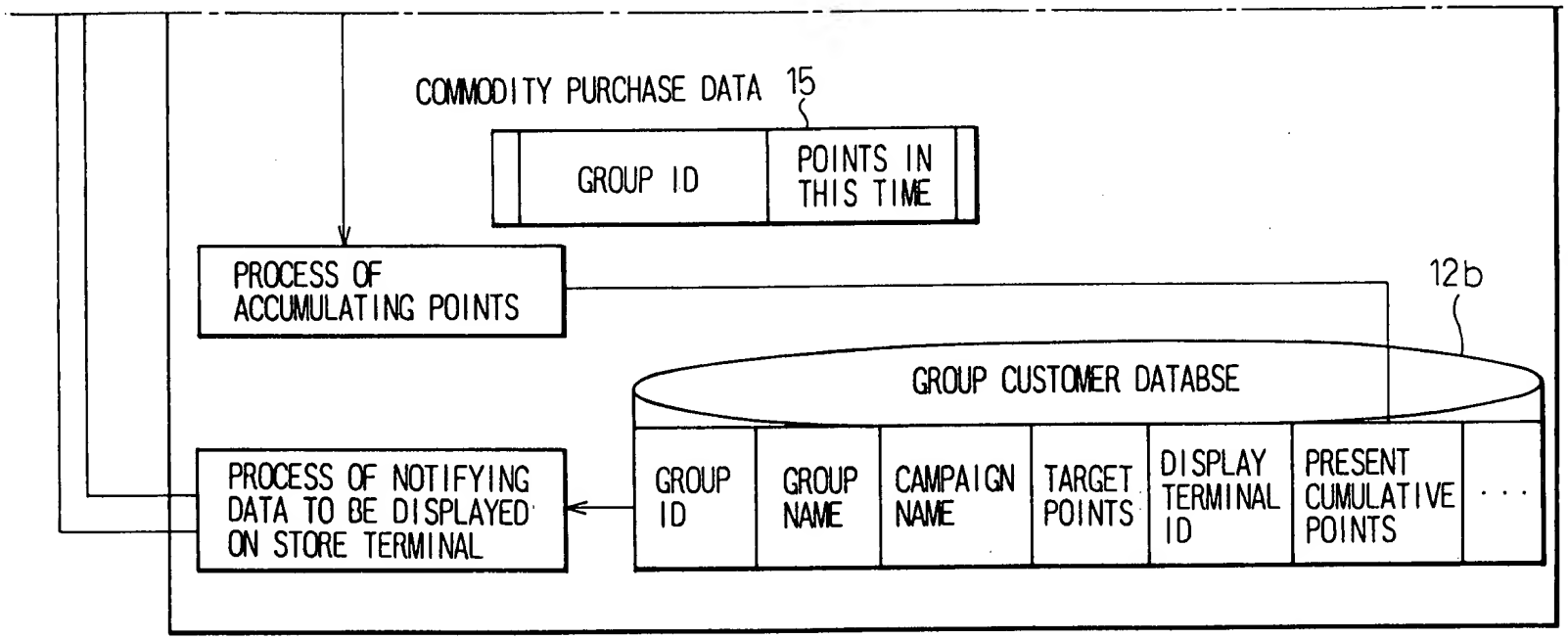

COMMODITY PURCHASE DATA
15
GROUP ID
POINTS IN THIS TIME
PROCESS OF ACCUMULATING POINTS
12b
GROUP CUSTOMER DATABSE
PROCESS OF NOTIFYING DATA TO BE DISPLAYED ON STORE TERMINAL
GROUP ID
GROUP NAME
CAMPAIGN NAME
TARGET POINTS
DISPLAY TERMINAL ID
PRESENT CUMULATIVE POINTS
. . .

Fig. 23

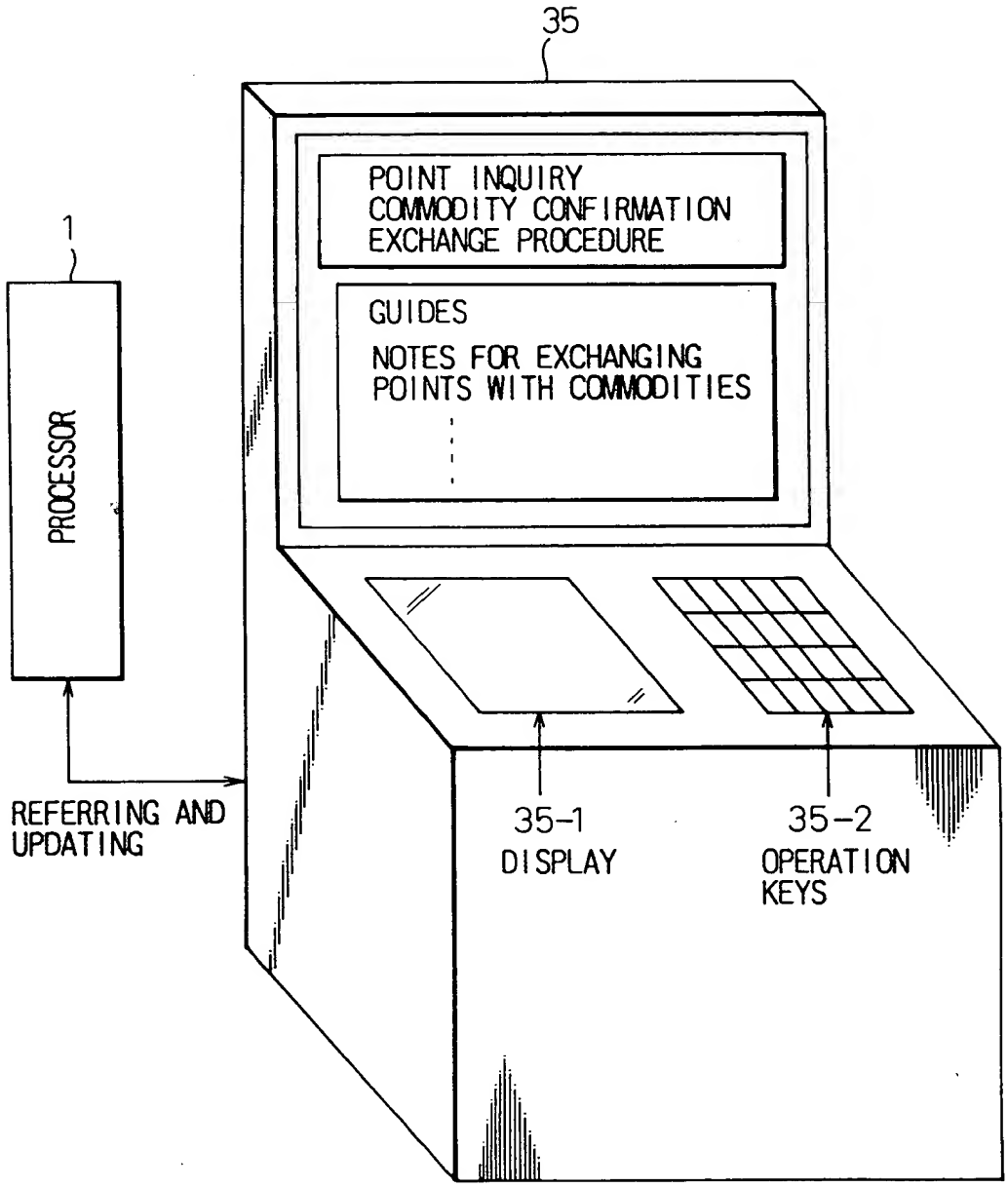

35
POINT INQUIRY
COMMODITY CONFIRMATION
EXCHANGE PROCEDURE
GUIDES
NOTES FOR EXCHANGING
POINTS WITH COMMODITIES
1
PROCESSOR
REFERRING AND
UPDATING
35-1
DISPLAY
35-2
OPERATION
KEYS

Fig.24(A)

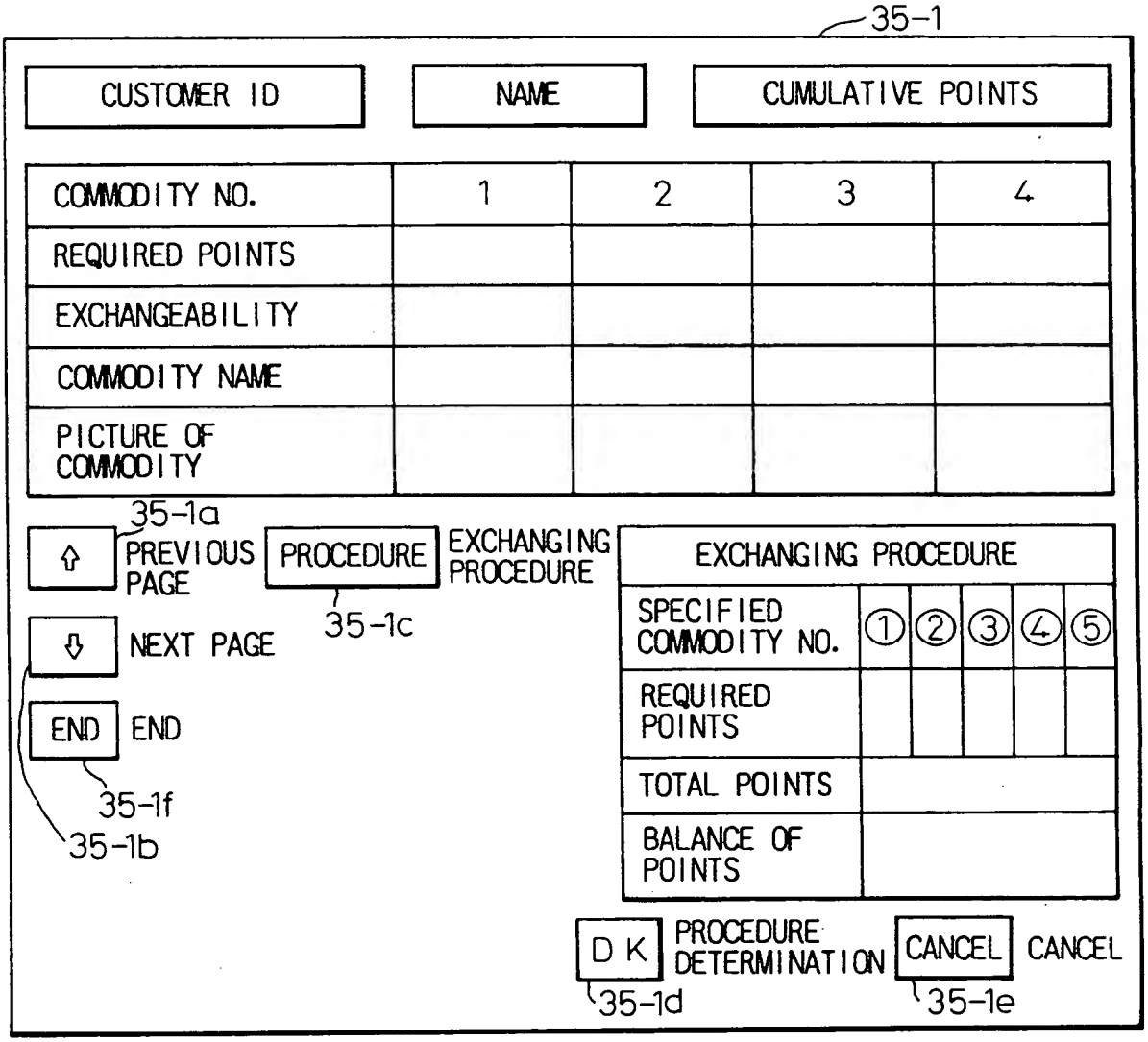


Fig.24(B)

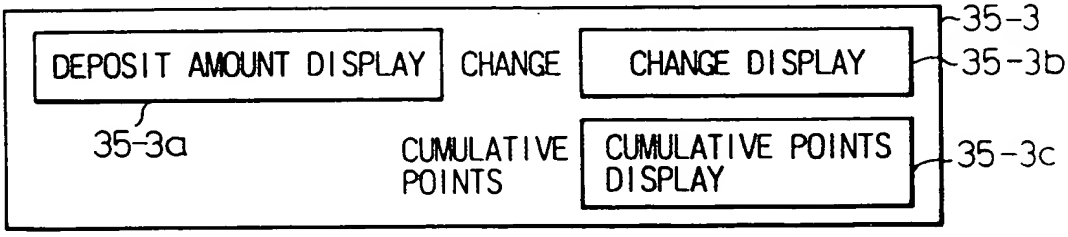


Fig.25

Fig.25(A) | Fig.25(B)

Fig.25(A)

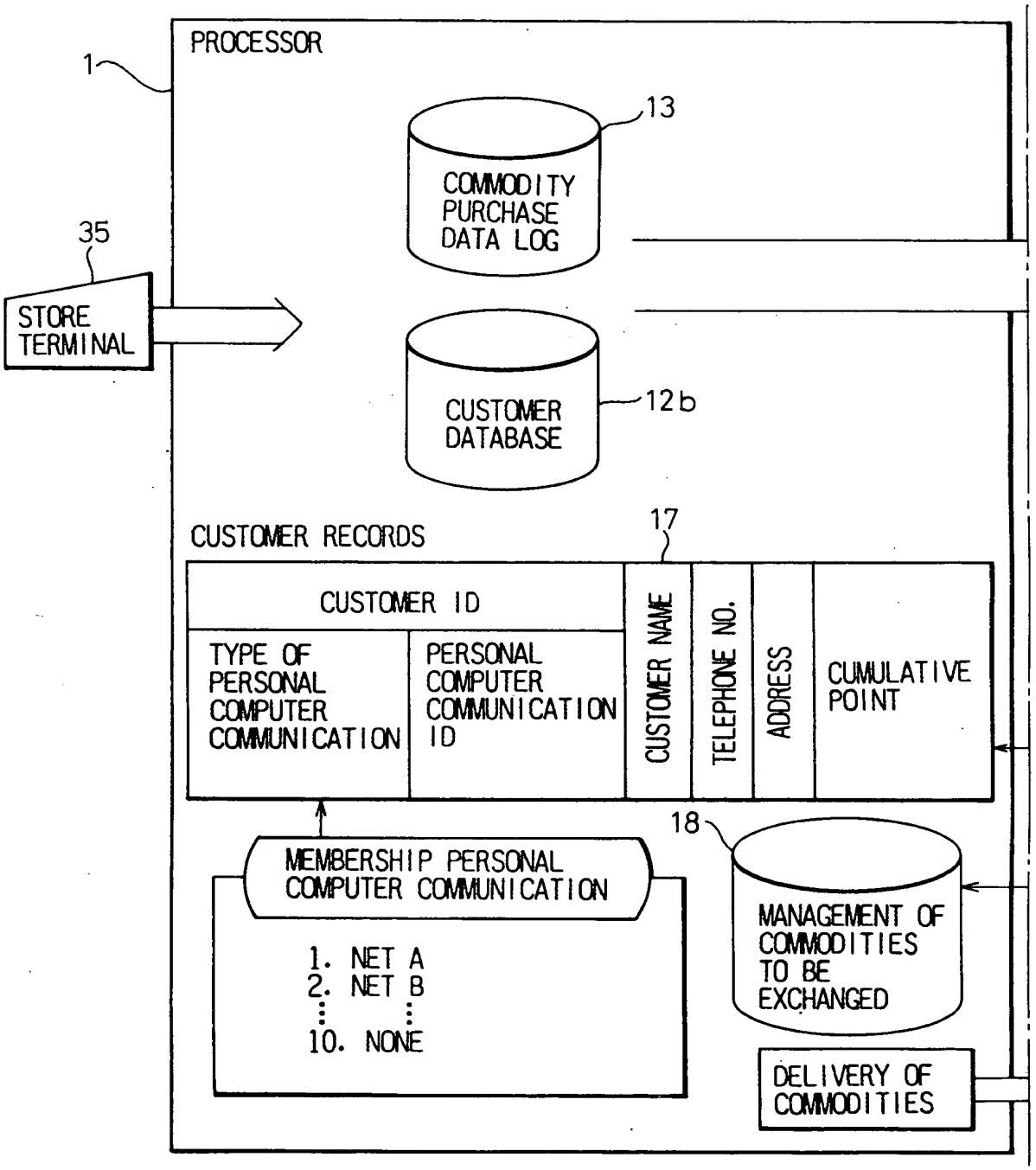


Fig.25(B)

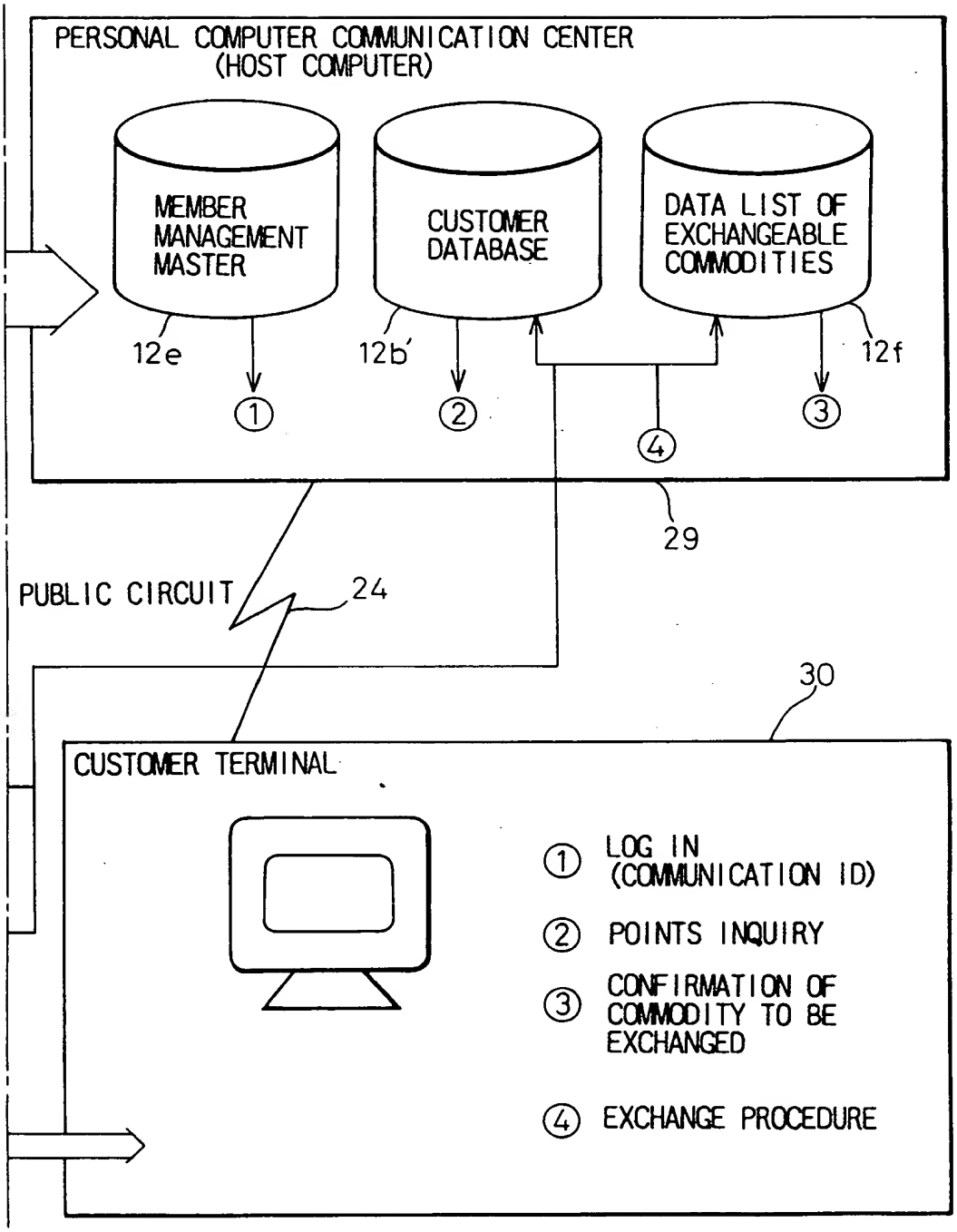

PERSONAL COMPUTER COMMUNICATION CENTER
(HOST COMPUTER)
MEMBER MANAGEMENT MASTER
CUSTOMER DATABASE
DATA LIST OF EXCHANGEABLE COMMODITIES
12e
12b'
12f
①
②
③
④
29
PUBLIC CIRCUIT
24
30
CUSTOMER TERMINAL
① LOG IN (COMMUNICATION ID)
② POINTS INQUIRY
③ CONFIRMATION OF COMMODITY TO BE EXCHANGED
④ EXCHANGE PROCEDURE

Fig.26

Fig.26(A) | Fig.26(B)

Fig.26(A)

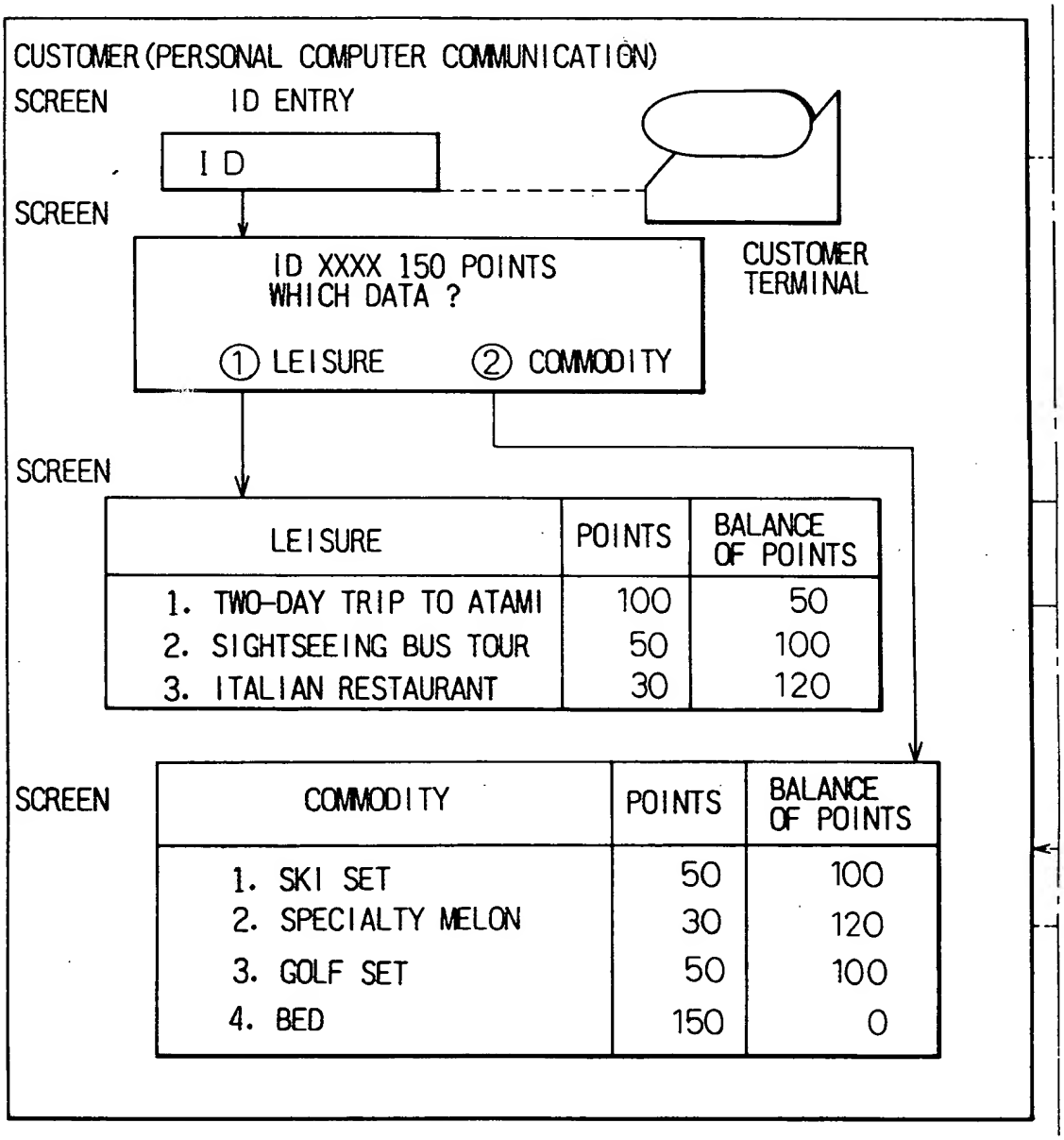


Fig.26(B)

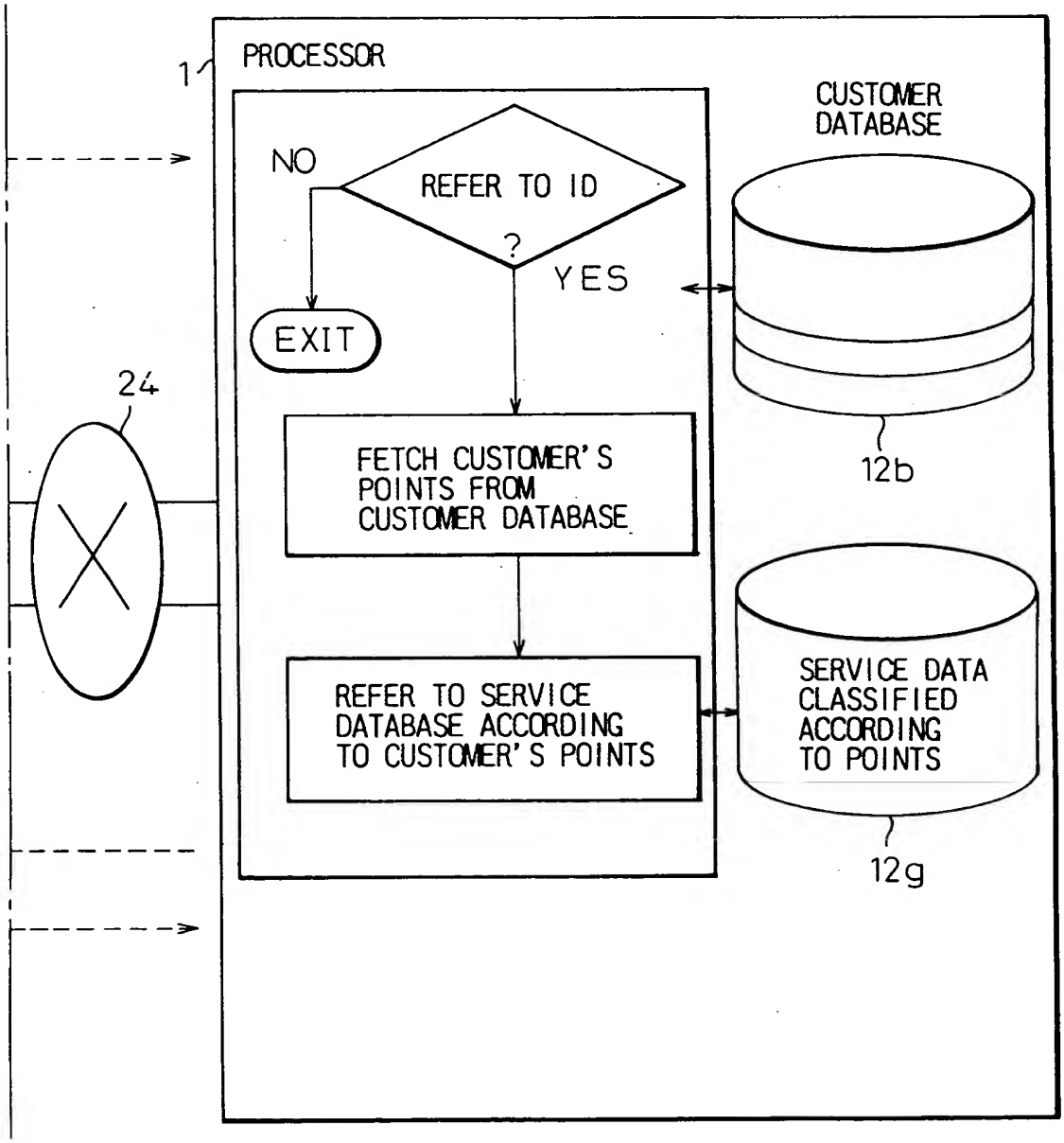

PROCESSOR
1
CUSTOMER DATABASE
NO
REFER TO ID
?
YES
EXIT
24
FETCH CUSTOMER'S POINTS FROM CUSTOMER DATABASE
12b
REFER TO SERVICE DATABASE ACCORDING TO CUSTOMER'S POINTS
SERVICE DATA CLASSIFIED ACCORDING TO POINTS
12g

Fig.27

Fig.27(A) | Fig.27(B)

Fig.27(A)

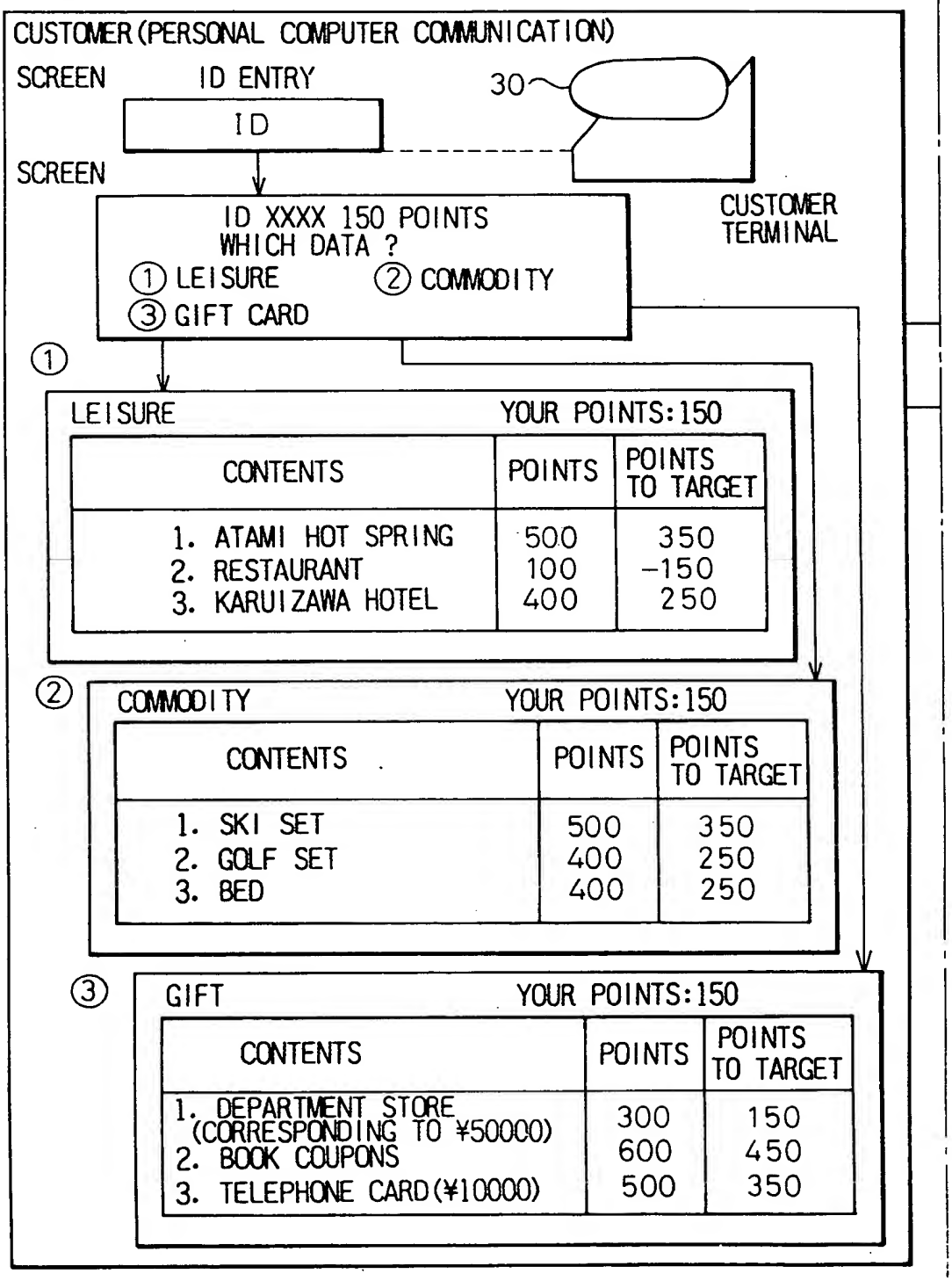


Fig.27(B)

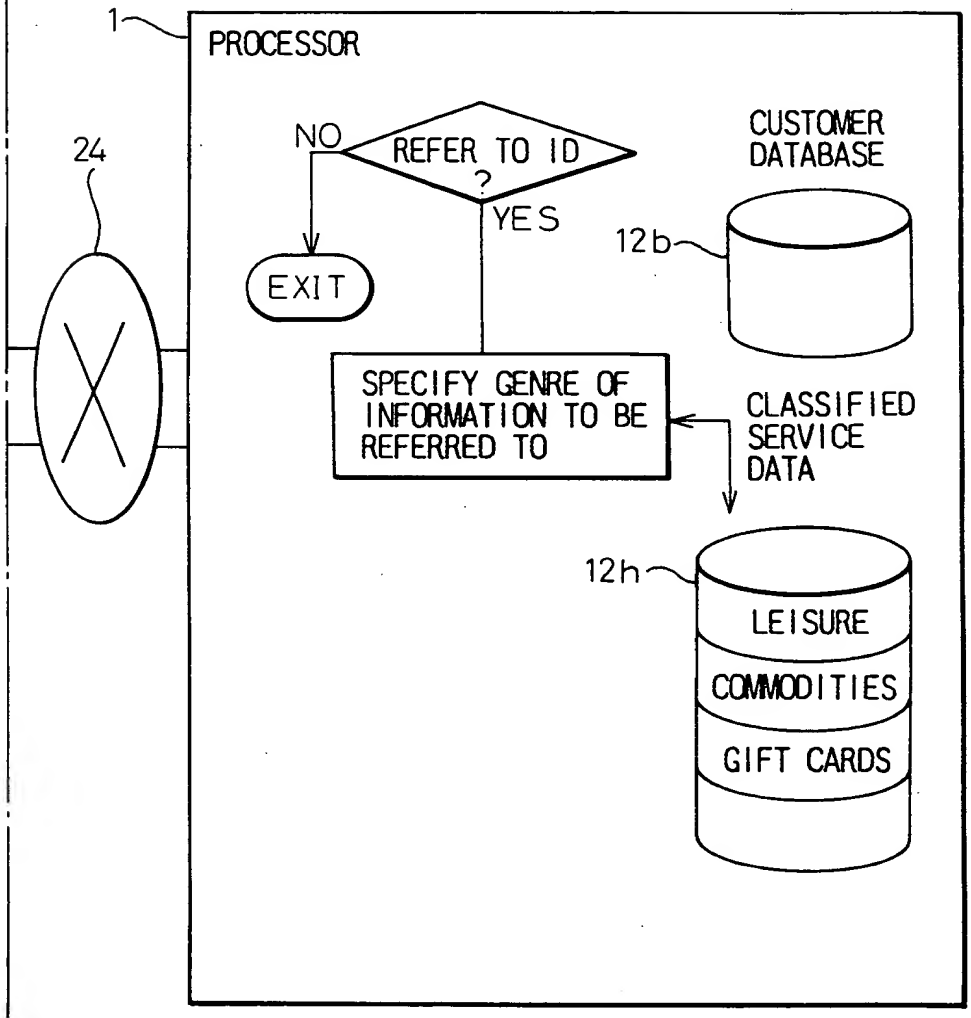

1
PROCESSOR
24
NO
REFER TO ID ?
YES
EXIT
CUSTOMER DATABASE
12b
SPECIFY GENRE OF INFORMATION TO BE REFERRED TO
CLASSIFIED SERVICE DATA
12h
LEISURE
COMMODITIES
GIFT CARDS

Fig.28

Fig.28(A)	Fig.28(B)

Fig.28(A)

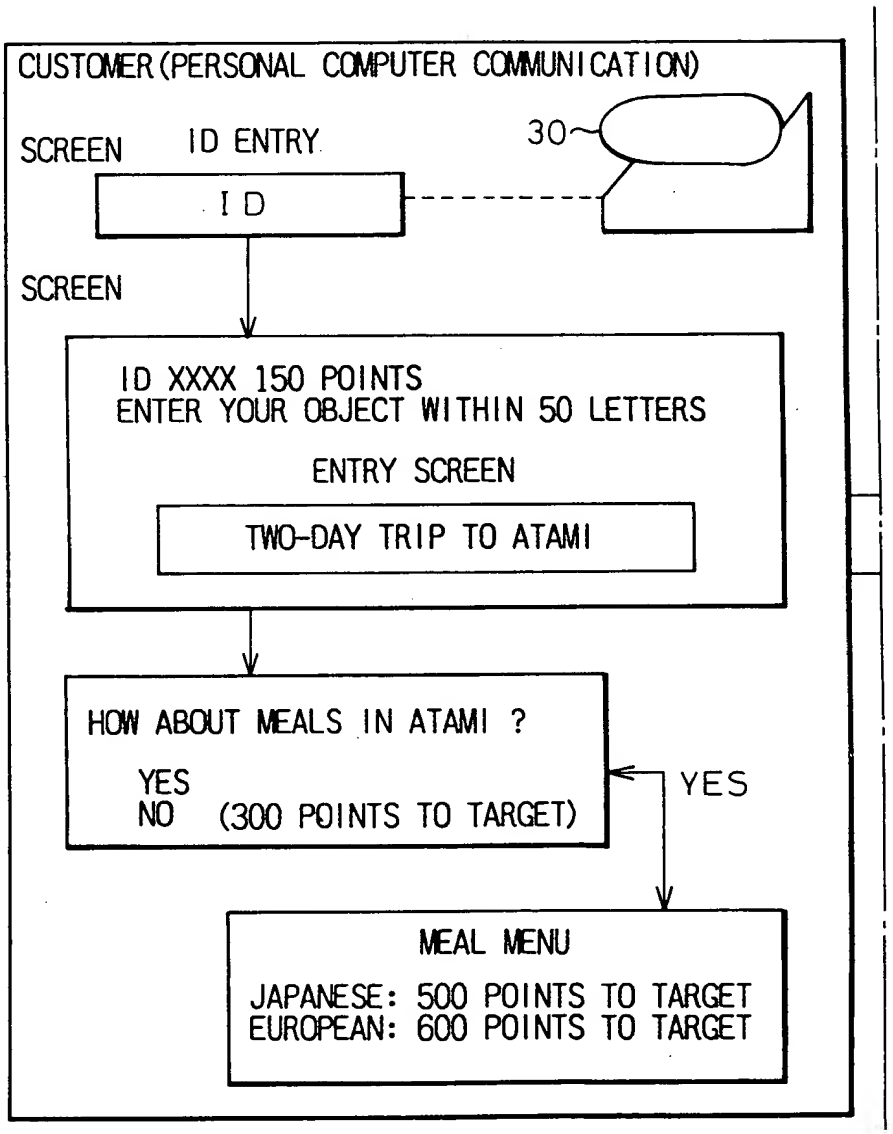


Fig.28(B)

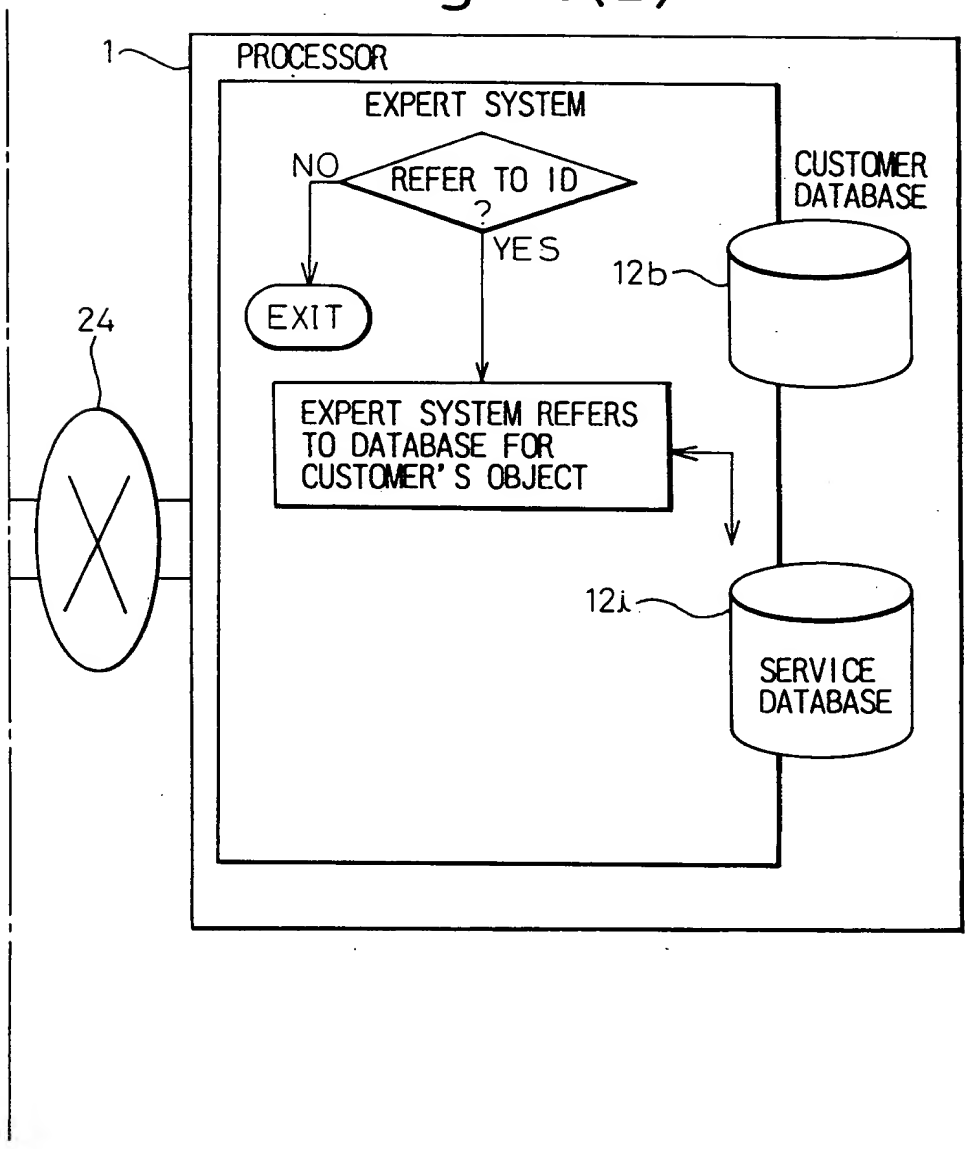

1
PROCESSOR
EXPERT SYSTEM
NO
REFER TO ID ?
YES
EXIT
CUSTOMER DATABASE
12b
24
EXPERT SYSTEM REFERS TO DATABASE FOR CUSTOMER'S OBJECT
12i
SERVICE DATABASE

Fig.25

Fig.29(A)	Fig.29(B)

Fig.29(A)

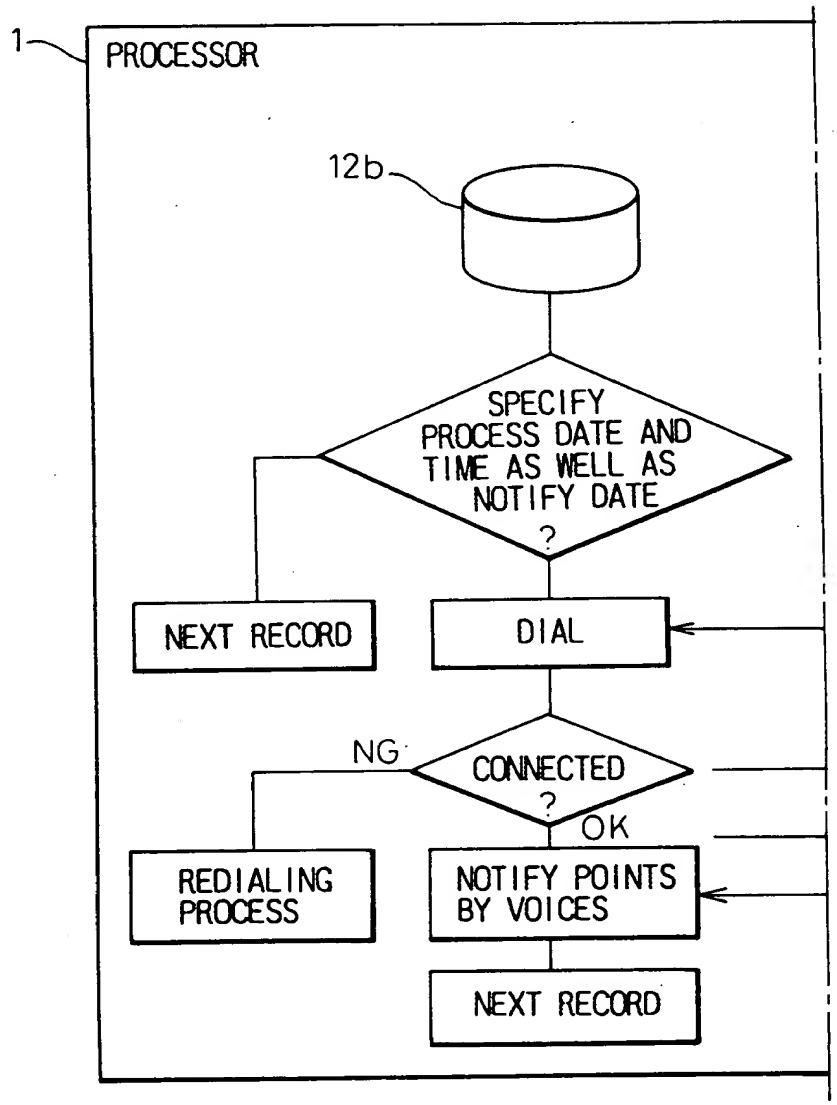


Fig.29(B)

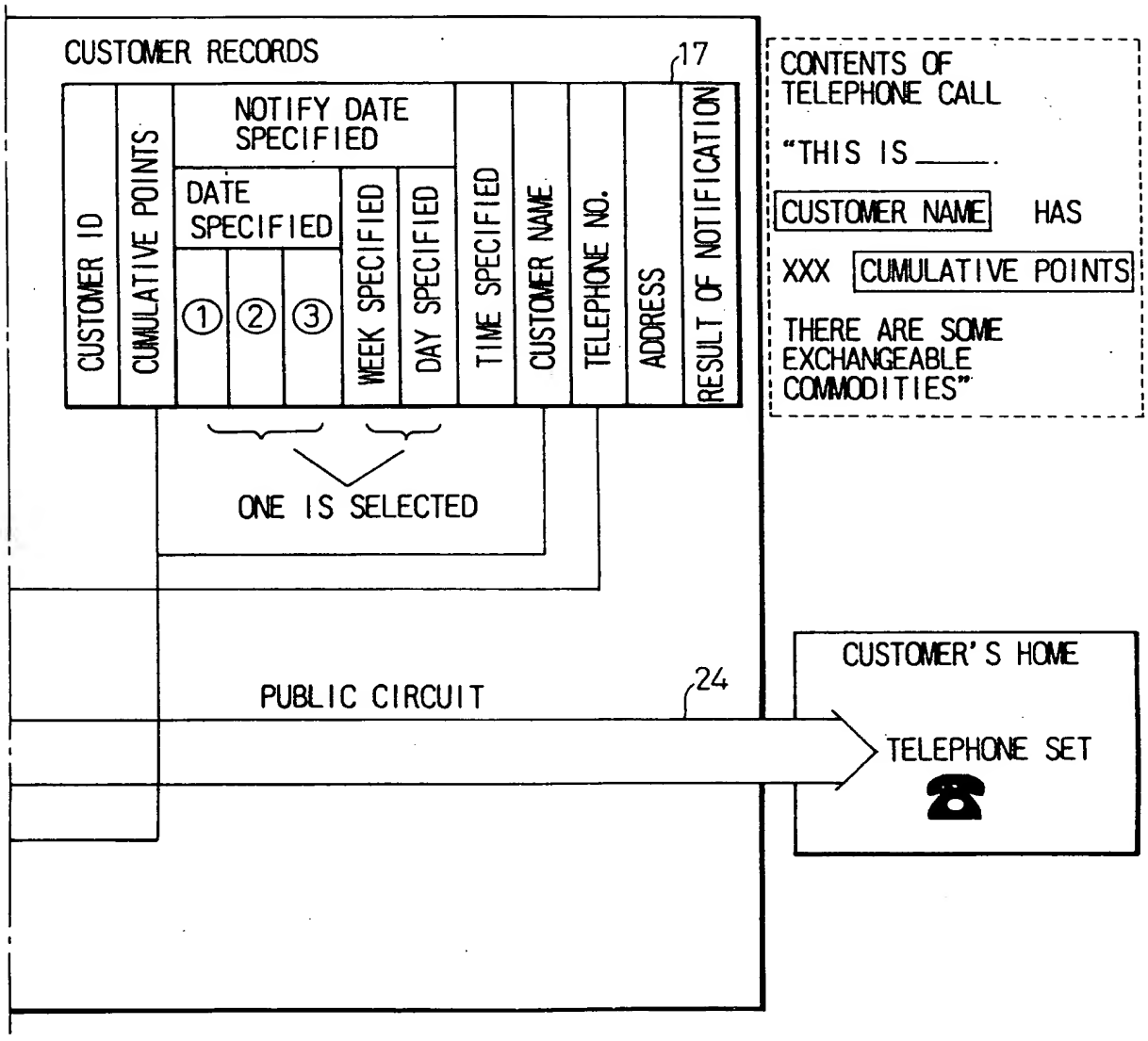

CUSTOMER RECORDS
17
CUSTOMER ID
CUMULATIVE POINTS
NOTIFY DATE SPECIFIED
DATE SPECIFIED
①
②
③
WEEK SPECIFIED
DAY SPECIFIED
TIME SPECIFIED
CUSTOMER NAME
TELEPHONE NO.
ADDRESS
RESULT OF NOTIFICATION
ONE IS SELECTED
CONTENTS OF TELEPHONE CALL
"THIS IS ____.
CUSTOMER NAME HAS
XXX CUMULATIVE POINTS
THERE ARE SOME EXCHANGEABLE COMMODITIES"
PUBLIC CIRCUIT
24
CUSTOMER'S HOME
TELEPHONE SET

Fig.30 (A)

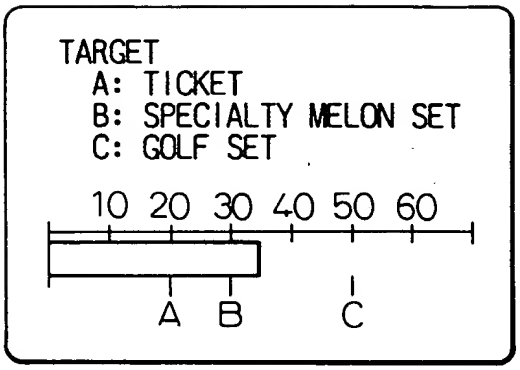


Fig.30 (B)

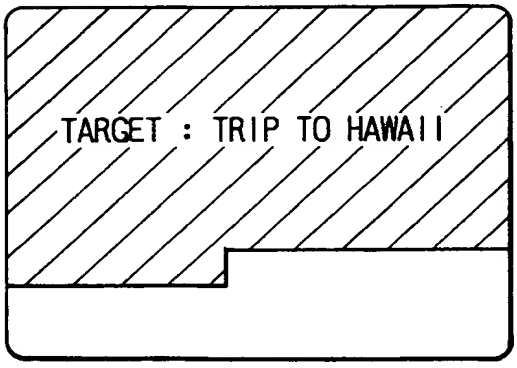


Fig. 30 (C)

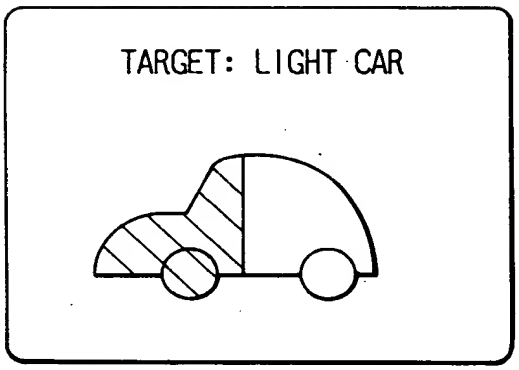


Fig. 30 (D)

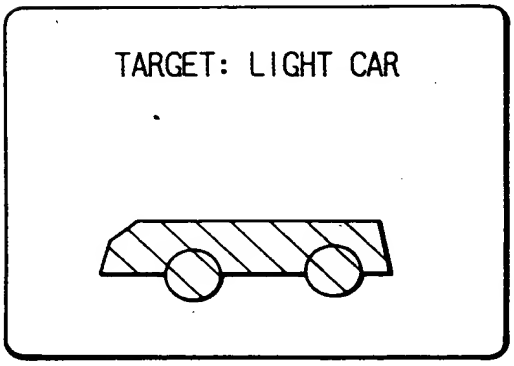
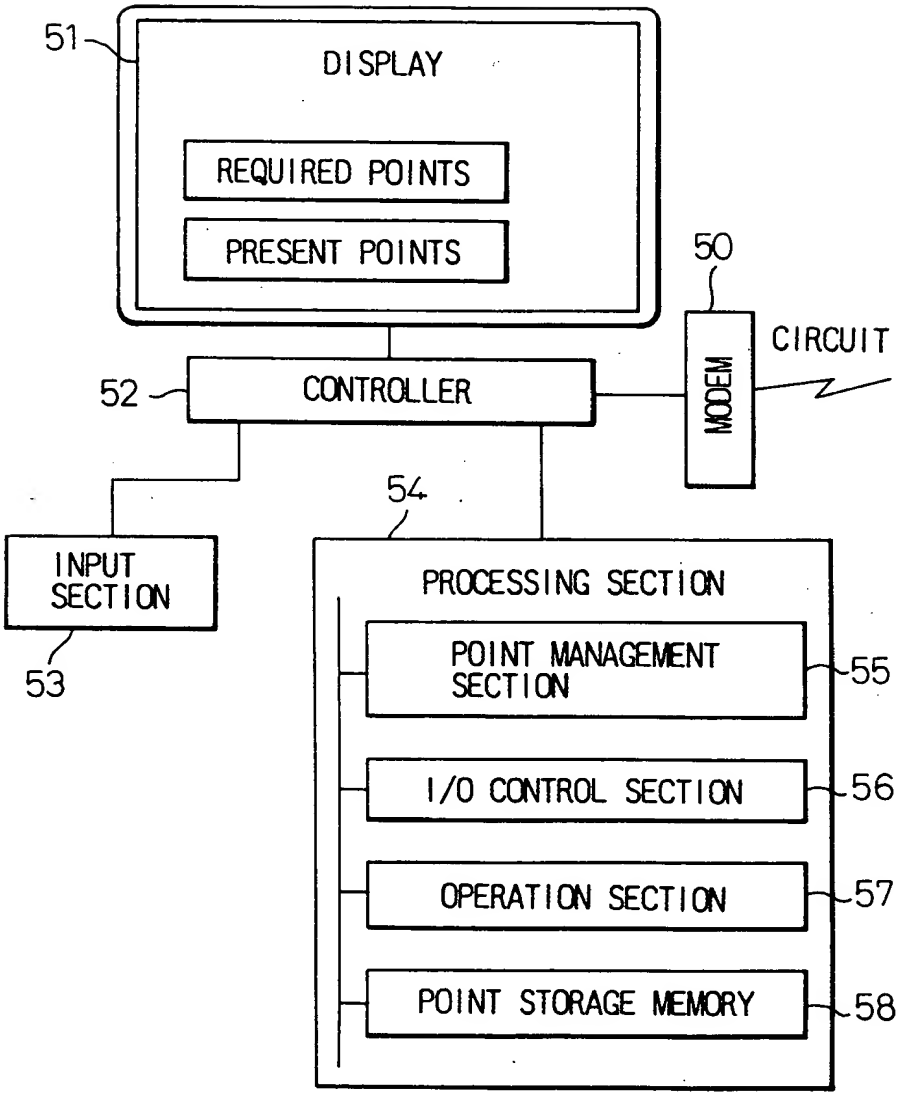


Fig.31


51
DISPLAY
REQUIRED POINTS
PRESENT POINTS
50
CIRCUIT
MODEM
52
CONTROLLER
54
INPUT SECTION
53
PROCESSING SECTION
POINT MANAGEMENT SECTION
55
I/O CONTROL SECTION
56
OPERATION SECTION
57
POINT STORAGE MEMORY
58